

Initial Study

1270 CAMPBELL AVENUE  
PLANNED DEVELOPMENT  
ZONING  
(PDC07-081)



September 2008

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## **SECTION 1 INTRODUCTION AND PURPOSE**

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This Initial Study of environmental impacts is being prepared to conform to the requirements of the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations §15000 *et.seq.*) and the regulations and policies of the City of San José, California.

This Initial Study evaluates the potential environmental impacts that might reasonably be anticipated to result from the proposed Planned Development (PD) zoning on a 5.18-acre site located at 1270 Campbell Avenue in the Cities of San José and Santa Clara. Approximately 4.60-acres of the site are located within the City of San José and 0.58-acres of the site are located in the City of Santa Clara. While the City of San José would be the Lead Agency for the entire project site under CEQA, the City of Santa Clara would be a Responsible Agency and use this Initial Study for approval of necessary development actions within its jurisdiction including, but not limited to, rezonings and permits.

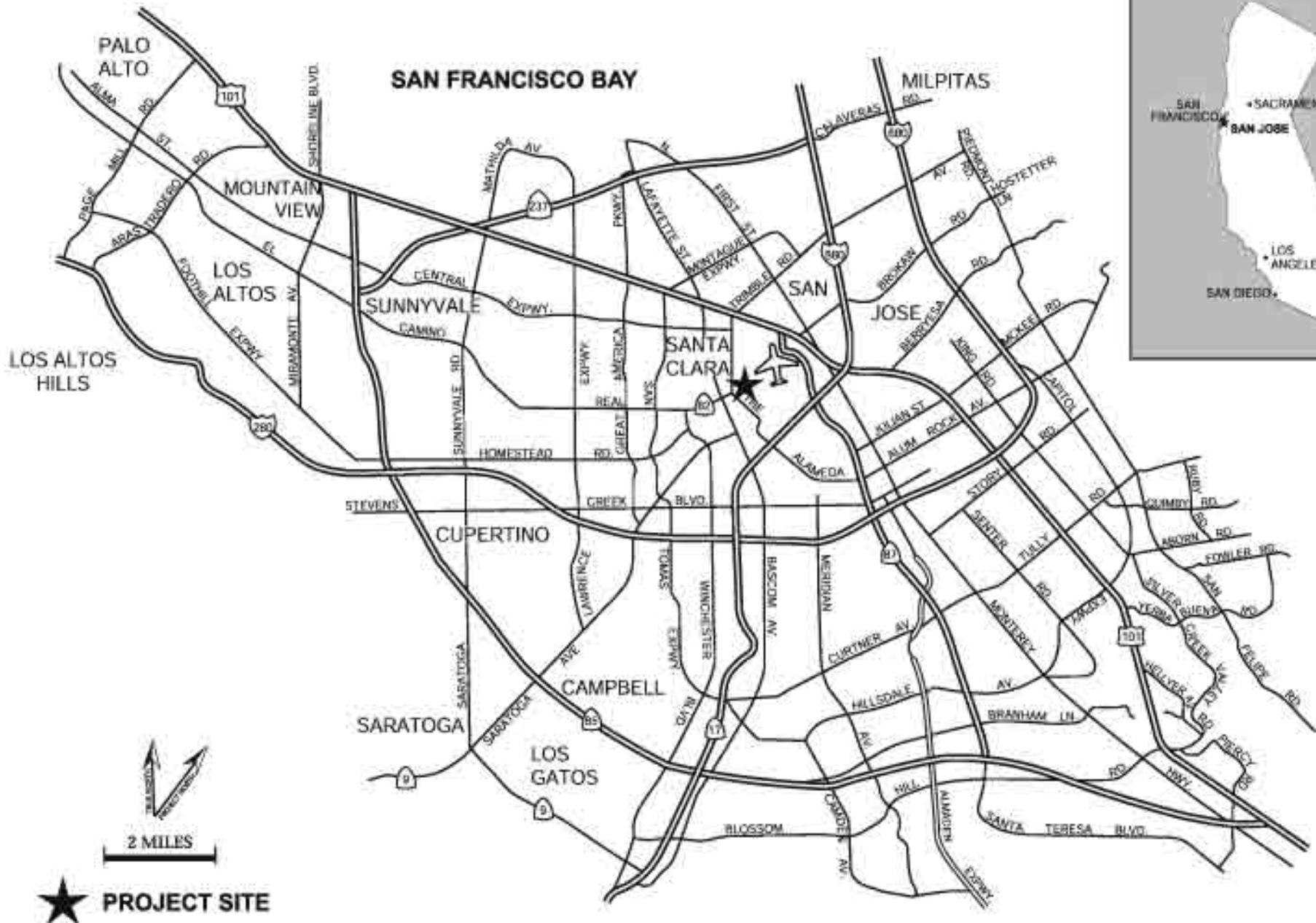
### **Santa Clara BART Station Area Plan**

The City of Santa Clara, City of San José, and Santa Clara Valley Transportation Authority (VTA) are working together on a plan for the area around the Santa Clara Transit Center. The Transit Center is currently served by Caltrain, Altamont Commuter Express (ACE), and VTA bus lines. Additionally, future plans call for an Automated People Mover (APM) system that would connect Norman Y. Mineta San José International Airport with both the Transit Center and VTA's Metro/Airport light rail station. The VTA is currently working to extend BART from Fremont to Silicon Valley, with the Santa Clara Transit Center forming the terminus of this extension. With completion of the BART extension to Santa Clara, direct rail service will be provided to virtually all parts of the San Francisco Bay Area and the Transit Center will become a key intermodal hub in the region. The project planning area consists of approximately 432 acres in the Cities of Santa Clara and San José, which includes the project site at 1270 Campbell Avenue. The plan will provide the foundation for revitalization and redevelopment within the planning area.<sup>1</sup>

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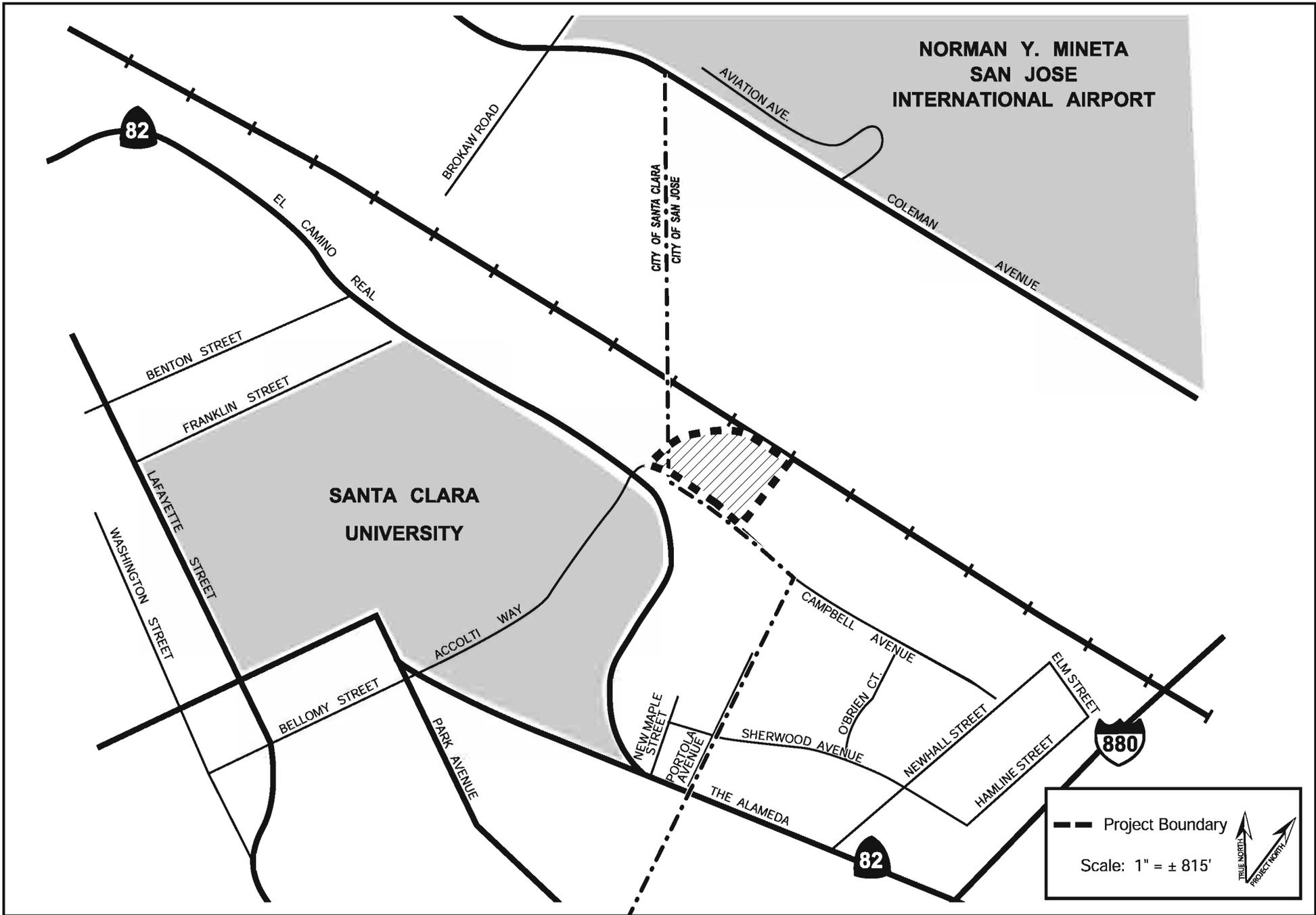
<sup>1</sup> [Santa Clara Station Area Plan](http://www.santaclarasap.com/index.php). 1 October 2007. Santa Clara Station Area Plan. 6 December 2007.  
<http://www.santaclarasap.com/index.php>





REGIONAL MAP

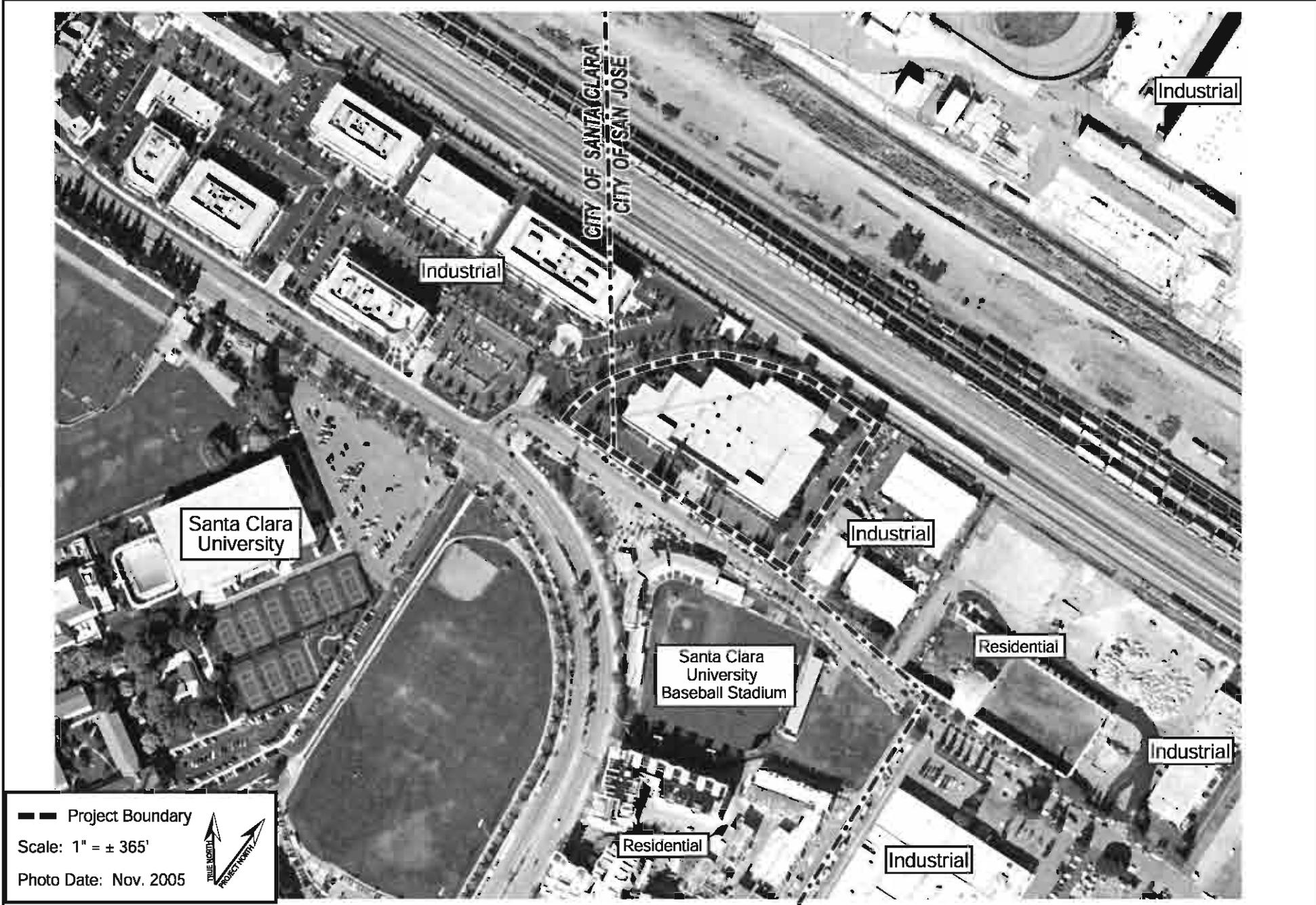
FIGURE 1



9

VICINITY MAP

FIGURE 2



AERIAL PHOTOGRAPH

FIGURE 3

## **SECTION 3 PROJECT DESCRIPTION**

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### **3.1 BACKGROUND**

The 5.18-acre project site straddles the San José and Santa Clara City jurisdictional boundaries. Approximately 4.60 acres of the site is located within the City of San José and 0.58 acres of the site is located within the City of Santa Clara. A San José General Plan Amendment (GP05-03-02) approved in June 2006 changed the land use designation on the site to *High Density Residential* to allow development of 25 to 50 dwelling units per acre on the site. The existing land use designation for 0.58 acres of the site in the City of Santa Clara is *Gateway Thoroughfare*. The *Gateway Thoroughfare* land use designation in the City of Santa Clara's General Plan allows for both commercial and residential uses (19 to 25 du/acre). Although the proposed project includes residential uses, the density proposed is inconsistent with the City's General Plan land use designation for the site. The City of Santa Clara is a Charter City and state law does not require zoning consistency with the General Plan. Under the City's Zoning Ordinance, however, the project could be found consistent with the existing Santa Clara General Plan designation for the site by proposing a *Planned Development (PD)* zoning and determination of the necessary findings for zoning approval.

### **3.2 PROJECT OVERVIEW**

The project proposes to rezone the approximately 4.6 acres of the site in San José from *HI – Heavy Industrial* to *A(PD) – Planned Development* and the 0.58 acres of the site in Santa Clara from *ML – Light Industrial* to *PD – Planned Development*. *A Memorandum of Understanding (MOU) establishing review and permitting authority for San José and Santa Clara for site clearance and development will be pursued between the two jurisdictions.*

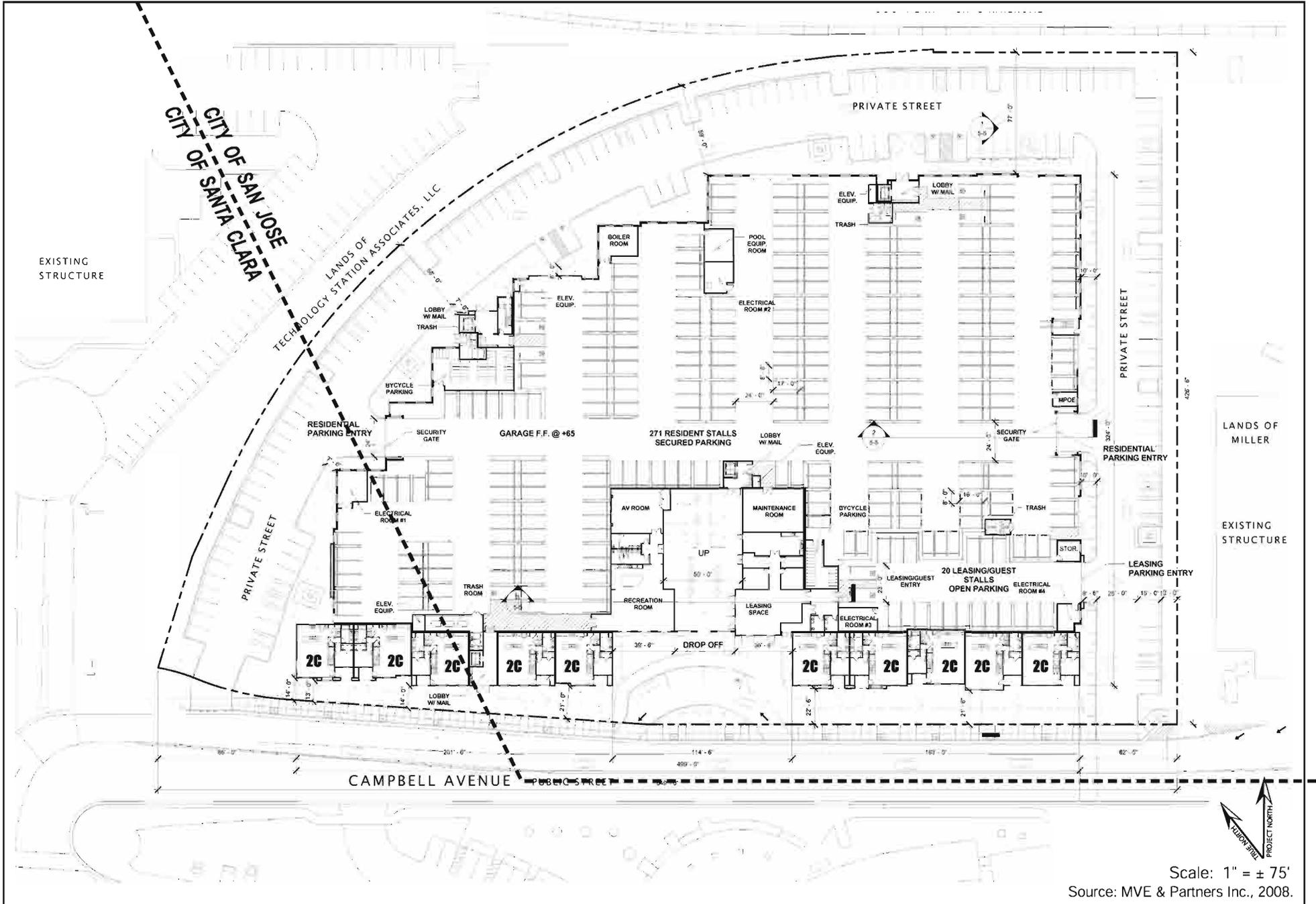
The site is currently developed with an approximately 82,000 square foot industrial/research and development building with associated parking lots and landscaping. The existing General Plan land use designations on the site allow for a total of 259 residential units on the entire parcel. The proposed PD zoning would allow for the development of 259 residential units on the site. The proposed PD zoning would also allow a front setback of 11 feet with side and rear setbacks of 45 feet and a maximum building height of 70 feet. The conceptual plans for the project site are discussed below.

### **3.3 PROJECT DESIGN**

The conceptual plans for the project site propose development of approximately 248<sup>3</sup> units, including approximately 125 one-bedroom flats, 113 two-bedroom flats, and ten townhouse units. The proposed building would be a podium structure up to 70 feet in height, with an at-grade parking garage and four levels of residential units atop the podium. The proposed nine townhouse units would be located along the site's Campbell Avenue frontage. Leasing offices and amenity space for residents would also be located on the ground floor of the building. The proposed townhouses and community facilities would shield views of the parking garage from street level. Additional parking is proposed surrounding the perimeter of the building (refer to Figure 4).

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<sup>3</sup> The proposed Planned Development zoning allows development of up to 259 dwelling units on the site; however, due to the applicant's desire to maintain a specific parking ratio for the units the current conceptual plans for the site propose development of 248 dwelling units. For the purposes of this environmental review for the project the maximum number of units allowed by the proposed PD zoning is analyzed throughout this Initial Study unless otherwise noted.



Scale: 1" = ± 75'  
 Source: MVE & Partners Inc., 2008.

CONCEPTUAL GROUND FLOOR SITE PLAN

FIGURE 4

The podium level of the building would include the second-story of the proposed townhouse units, 31 one-bedroom flats, and 19 two-bedroom flats. The podium level would also include community amenities for the building including a pool and spa (refer to Figure 5). The proposed pool and spa would be located in the northeast portion of the building.

### **3.3.1 Building Heights and Setbacks**

The proposed building would be approximately 70 feet in height above grade (refer to Figure 6). The building would be set back approximately 13 feet from the Campbell Avenue property line. The building would also be set back approximately 62 feet from the project east property line, approximately 78 feet from the project north property line, and approximately 58 feet from the project west property line.

### **3.3.2 Site Access and Parking**

Access to the site would be provided from Campbell Avenue at two existing driveways. The parking garage for residents of the site would be accessed from the surface parking lot on the east and west sides of the building. A separated visitor parking area in the proposed garage would be accessed at a separate entrance on the east side of the building from the surface parking lot. An additional half-circle visitor parking and loading area would be located at the center of the Campbell Avenue site frontage.

The project proposes approximately 438 vehicle parking spaces and 62 bicycle parking spaces on the site. The parking garage would include 291 spaces, and 147 surface parking spaces would be provided around the site perimeter (refer to Figure 4).

### **3.3.3 Landscaping**

The project includes approximately 34,412 square feet of landscaped area. Landscaping for the project will be located surrounding the proposed building and parking areas. Landscaping will also be provided on the podium level of the proposed building.

#### **3.3.3.1 *Drainage Improvements***

The project would include mechanical treatment units to treat all stormwater runoff from the site. The project would connect to storm drainage lines in Campbell Avenue.

### **3.3.4 Demolition and Grading**

The proposed project would require the demolition of the existing building on the project site. Concrete from the demolition of the existing development would be crushed on the site.

The project would require the excavation of approximately 140 cubic yards of soil and import of 3,550 cubic yards of soil to construct the proposed building foundations. The identified quantity of fill assumes the reuse of existing concrete and building materials on the site. The existing asphaltic concrete will be hauled from the site.

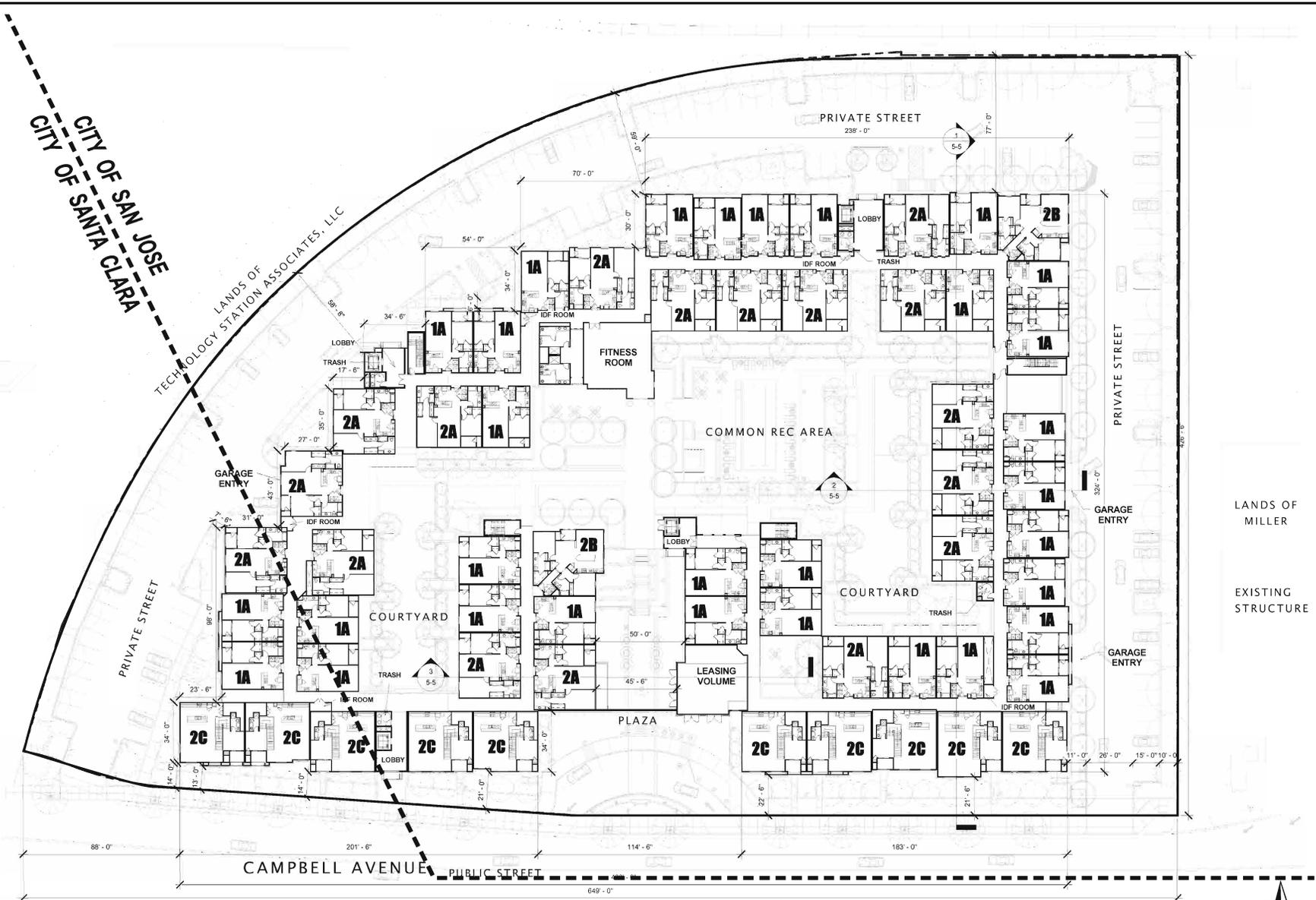
### **3.4.5 Construction Schedule**

Construction of the proposed project is expected to begin in summer 2009 and be completed in 2011.

EXISTING  
STRUCTURE

CITY OF SAN JOSE  
CITY OF SANTA CLARA

LANDS OF  
TECHNOLOGY STATION ASSOCIATES, LLC



② Level 1  
1" = 30'-0"



Scale: 1" = ± 75'  
Source: MVE & Partners Inc., 2008.

CONCEPTUAL PODIUM LEVEL PLAN

FIGURE 5



Scale: 1" = ± 50'  
Source: MVE & Partners Inc., 2008.

CONCEPTUAL SITE ELEVATION

FIGURE 6

## SECTION 4 ENVIRONMENTAL CHECKLIST, IMPACTS, AND MITIGATION

---

*This section describes the existing environmental conditions on and near the project site, as well as environmental impacts associated with the proposed project. The environmental checklist, as recommended in the California Environmental Quality Act (CEQA) Guidelines, identifies environmental impacts that could occur if the proposed project is implemented.*

*The right-hand column in the checklist lists the source(s) for the answer to each question. The sources cited are identified at the end of this section. Mitigation measures are identified for all significant project impacts. "Mitigation Measures" are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guideline 15370). Measures that are required by law or are standard City conditions of approval are categorized as "Standard Measures." Measures that are proposed by the applicant that will further reduce or avoid already less than significant impacts are categorized as "Avoidance Measures."*

### 4.1 AESTHETICS

#### 4.1.1 Setting

##### 4.1.1.1 *Project Site*

The project site is located in an area that over the last several years has been transitioning from an industrial area to residential development. The site is currently developed with a vacant one-story, concrete tilt-up office and research and development (office/R&D) building. The building is surrounded by mature landscaping and parking lots. The site is separated from the UPRR tracks to the north and industrial uses to the east by cyclone fencing.

##### 4.1.1.2 *Surrounding Area*

An older two-story industrial building is located east of the project site. A modern two-story office/R&D building is located west of the site. The Stephen Schott Santa Clara University baseball stadium located south of the site, across Campbell Avenue, was completed in April 2005 (refer to Figure 3). Four other recently approved projects have and will add medium and high density residential units on Campbell Avenue east of the project site and south of the site, fronting El Camino Real. The UPRR right-of-way is located north of the site. Views of the site and surrounding uses are shown in Photos 1-5 and Figure 7.

##### 4.1.1.3 *Scenic Vistas*

The project site is not located within a scenic viewshed or along a scenic highway. There are no scenic views visible from the project site.



PHOTO LOCATIONS

FIGURE 7



Photo 1 - View of the main entrance to the project site looking northeast from the Santa Clara University baseball stadium.



Photo 2 - View of the project site looking north from the south side of the site's signalized intersection with Campbell Avenue.

## PHOTOS 1 AND 2



Photo 3 - View of the adjacent industrial building to the east of the site looking northeast from the south side of Campbell Avenue.



Photo 4 - View of the Santa Clara University baseball stadium looking south from the project site.

## PHOTOS 3 AND 4



Photo 5 - View of the adjacent office/R&D building northwest of the site from the intersection of Campbell Avenue and El Camino Real.

**4.1.2 Environmental Checklist and Discussion**

AESTHETICS						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)
Would the project:						
1) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
2) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
3) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2
4) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2
5) Increase the amount of shading on public open space (e.g., parks, plazas, and/or school yards)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

**4.1.2.1 Change in Visual Character**

The project proposes to demolish and remove the existing one-story office building on the site. As discussed in *Section 4.4 Biological Resources*, the project would result in the removal of 166 landscape trees; due to the need to raise the elevation of the site to reduce flooding impacts on the project (refer to *Section 4.8 Hydrology and Water Quality*). The project would plant 13 street trees along the Campbell Avenue frontage. The proposed project will also plant replacement trees in the common area, courtyards, and around the perimeter of the site. Replacement tree planting will also occur off-site in accordance with the City’s tree replacement ratios (refer to *Section 4.4 Biological Resources*).

The existing single-story office building on the site is approximately 15 to 20 feet in height and the proposed PD zoning would allow a building approximately 70 feet in height. The existing building is set back approximately 90 feet from the Campbell Avenue property line. The proposed building would be set back a minimum of 11 feet from the front (Campbell Avenue) property line of the site. The proposed building, therefore, would be substantially larger and closer to the street than the existing building on the site.

The proposed project would alter the visual character of the site; however, it would not significantly degrade the existing visual character of the site. The final project design would be required to undergo architectural and site design review by Planning Staff to ensure compatibility with the surrounding neighborhood.

**Standard Measure:** The project shall implement the following standard measure:

**SM AES-1:** The project shall conform to the City’s *Residential Design Guidelines*.

#### 4.1.2.2 *Light and Glare Impacts*

The proposed project will not introduce a new source of light or glare in the project area; however, light in the project area would generally increase because the proposed lit building would be taller than the existing buildings on-site. Light and glare impacts, including light spillover onto adjacent properties, would be avoided through compliance with the City's *Outdoor Lighting Policy* (4-3).

**Standard Measure:** The project shall implement the following standard measure:

**SM AES-2:** Compliance with the City's *Outdoor Lighting Policy* (Policy 4-3), which includes the use of low-pressure sodium outdoor security lighting on-site along walkways, entrance areas, common outdoor use areas, and parking areas.

#### 4.1.2.3 *Shade and Shadow Impacts*

Shade and shadow impacts occur when a structure reduces access to natural sunlight. In an urban environment, virtually all land uses are subject to shading from adjacent properties to some extent. During summer, shading may even be desirable. The City of San José typically identifies significant shade and shadow impacts as occurring when a building or other structure substantially reduces natural sunlight on public open spaces, measured midday on the first day of winter (December 21) and on the vernal and autumnal equinoxes (March/September 21).<sup>4</sup>

Maximum shading occurs on December 21, the winter solstice, when the sun is at the lowest angle above the horizon. The proposed project would reach a maximum height of approximately 70 feet above grade which is taller than existing buildings adjacent to the site. There are no sensitive uses (residences, parks, etc.) near the project site that would be impacted by shading from the proposed building. The project would not result in substantial shading of any public open space and, therefore, the proposed project would not result in significant shade and shadow impacts.

#### 4.1.3 Conclusion

The proposed project with the implementation of Standard Measures (SM AES-1 and SM AES-2) would result in a less than significant aesthetic impact. **(Less Than Significant Impact)**

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<sup>4</sup> On the first day of winter, the sun is lowest in the sky and shading is greatest. On both the vernal and autumnal equinoxes, the sun is at the same location, over the equator. This threshold evaluates shading from September 21 through March 21.

## 4.2 AGRICULTURAL RESOURCES

### 4.2.1 Setting

According to the Santa Clara County Important Farmland 2006 map, the project site is designated as *Urban and Built-Up Land*. *Urban and Built-up Land* is defined as residential land with a density of at least six units per 10-acre parcel, as well as land used for industrial and commercial purposes, golf courses, landfills, airports, sewage treatment and water control structures.

Currently, the project site is developed and not used for agricultural purposes. The site is not the subject of a Williamson Act contract. The site is located within an urban area, and there is no property used for agricultural purposes adjacent to the project site.

### 4.2.2 Environmental Checklist and Discussion

AGRICULTURAL RESOURCES						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
Would the project:						
1) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3
2) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
3) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,3

The project site is located within an urbanized area. Approval of the proposed PD zoning would not result in the conversion of farmland to a non-agricultural use, or any impact on agriculture. For these reasons, the proposed project would not result in any impacts to farmland.

### 4.2.3 Conclusion

The proposed project would not result in impacts to farmland. **(No Impact)**

## **4.3 AIR QUALITY**

### **4.3.1 Setting**

#### **4.3.1.1 *Regulatory Setting and Criteria Pollutants***

The Bay Area typically has moderate ventilation, frequent inversions that restrict vertical dilution, and terrain that restricts horizontal dilution. These factors give the Bay Area a relatively high atmospheric potential for pollution. Of the three pollutants known to at times exceed the state and federal standards in the project area, two are regional pollutants. Both ozone and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) are considered regional pollutants in that concentrations are not determined by proximity to individual sources, but show a relative uniformity over a region. The third pollutant, carbon monoxide, is considered a local pollutant because elevated concentrations are usually only found near the source.

The Federal Clean Air Act and the California Clean Air Act of 1988 require that the State Air Resources Board, based on air quality monitoring data, designates portions of the state where the federal or state ambient air quality standards are not met as “non-attainment areas.” Because of the differences between the national and state data standards, the designation of nonattainment areas is different under the federal and state legislation. Under the California Clean Air Act, Santa Clara County is a non-attainment area for ozone and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). The County is either in attainment or unclassified for other pollutants.

BAAQMD monitors air quality at various locations throughout the Bay Area. The closest monitoring station to the project site is the San José Central station located on Jackson Street in San José. This station monitors ozone, carbon monoxide, nitrogen dioxide, and particulate matter. In the period 2004-2006, the San José Central monitoring station reported six days where the state one-hour and eight-hour ozone standards were exceeded, one day where the national eight-hour standard was exceeded, and eight days where the state PM<sub>10</sub> standard was exceeded. Carbon monoxide did not exceed the state or federal standards during this period.

#### **4.3.1.2 *Toxic Air Contaminants***

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least forty different toxic air contaminants. The most important, in terms of health risk, are diesel particulate, benzene, formaldehyde, 1,3-butadiene and acetaldehyde.

Public exposure to TACs can result from emissions from normal operations, as well as accidental releases. Health effects of TACs include cancer, birth defects, neurological damage and death.

#### **4.3.1.3 *Sensitive Receptors***

BAAQMD defines sensitive receptors as facilities where sensitive receptor population groups (children, the elderly, the acutely ill and the chronically ill) are likely to be located. These land uses include residences, school playgrounds, child-care centers, retirement homes, convalescent homes,

hospitals and medical clinics. Sensitive receptors (residences) are located approximately 300 feet east of the project site (refer to Figure 3).

**4.3.2 Environmental Checklist and Discussion**

AIR QUALITY						Information Source(s)/ Discussion Location
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	
Would the project:						
1) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,4
2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,4
3) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard including releasing emissions which exceed quantitative thresholds for ozone precursors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,4
4) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
5) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

**4.3.2.1 Regional and Local Impacts**

The Bay Area Air Quality Management District (BAAQMD) has established thresholds for what would typically be considered a significant addition to existing air pollution. A project that generates more than 80 pounds per day of reactive organic gases (ROG) or Nitrogen Oxides (NO<sub>x</sub>) is considered to have a potentially significant impact on regional air quality, according to the BAAQMD CEQA guidelines. The BAAQMD generally does not recommend a detailed air quality analysis for projects generating less than 2,000 vehicle trips per day or less than 510 multi-family residential units, unless warranted by the specific nature of the project setting.

As described in *Section 4.15 Transportation* of this Initial Study, the residential project would result generate 1,295 net daily trips. The amount of traffic generated from 259 units allowed by the proposed PD zoning project falls well below BAAQMD’s potential impact threshold that would necessitate the completion of an air quality analysis. The project, therefore, would result in less than significant long-term regional and local air quality impacts.

**4.3.2.2 Construction-Related Impacts**

Construction activities would temporarily affect local air quality. Construction activities such as demolition, earthmoving, construction vehicle traffic and wind blowing over exposed earth would generate exhaust emissions and fugitive particulate matter emissions that affect local and regional air

quality. Construction activities are also a source of organic gas emissions. Solvents in adhesives, non-water based paints, thinners, some insulating materials, and caulking materials would evaporate into the atmosphere and would participate in the photochemical reaction that creates urban ozone. Asphalt used in paving is also a source of organic gases for a short time after its application.

Construction dust could affect local air quality at various times during construction of the project. The dry, windy climate of the area during the summer months creates a high potential for dust generation when, and if, underlying soils are exposed to the atmosphere. The effects of construction activities would be increased dustfall and locally elevated levels of PM<sub>10</sub> downwind of construction activity.

**Impact AQ-1:** Construction activities such as demolition, clearing, excavation and grading operations, construction vehicle traffic and wind blowing over exposed earth would fugitive particulate matter emissions that could temporarily affect local air quality. **(Significant Impact)**

**Mitigation Measures:** The project proposes to implement the following mitigation measures to reduce the impacts of demolition and construction activities to a less than significant level:

- MM AQ-1:** Water all active construction areas at least twice daily and more often during windy periods to prevent visible dust from leaving the site.
- MM AQ-2:** Active areas adjacent to existing land uses shall be kept damp at all times or shall be treated with non-toxic stabilizers or dust palliatives.
- MM AQ-3:** Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
- MM AQ-4:** Pave, apply water at least three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- MM AQ-5:** Sweep daily, or more often if necessary (preferably with water sweepers) to prevent visible dust from leaving the site all paved access roads, parking areas, and staging areas at construction sites; water sweepers shall vacuum up excess water to avoid runoff-related impacts to water quality.
- MM AQ-6:** Sweep streets daily, or more often if necessary (preferably with water sweepers) if visible soil material is carried onto adjacent public streets.
- MM AQ-7:** Hydroseed or apply non-toxic soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- MM AQ-8:** Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- MM AQ-9:** Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- MM AQ-10:** Replant vegetation in disturbed areas as quickly as possible.
- MM AQ-11:** Limit traffic speed on unpaved roads to 15 mph.

#### 4.3.2.3 *Toxic Air Contaminants*

In 1998, the California Air Resources Board (CARB) identified particulate matter from diesel fueled engines as a toxic air contaminant (TAC). CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines. High volume freeways, stationary diesel engines, rail yards, and facilities attracting heavy and constant diesel vehicle traffic (e.g., distribution centers, truck stops, etc.) were identified as having the highest associated risk.

The project site is located near the UPRR Newhall Yard and a planned BART maintenance yard. According to recommendations by the California Air Resources Board (CARB) on diesel emissions, development of new sensitive land uses should be avoided within 1,000 feet of a major service and maintenance rail yard.<sup>5</sup> The Newhall Yard is not considered a major yard according to CARB. In addition, there are no CARB major rail yards within Santa Clara County for which CARB has recommended assessment and mitigation for public health risks. The proposed BART extension runs on an electrified track and therefore the maintenance yard would not result in additional diesel particulate emissions near sensitive receptors.

Alliance Roofing, a commercial roofing and waterproofing contractor, is located adjacent to the east property line of the project site. The BAAQMD has received no odor complaints over the period August 2004 to August 2007 for Alliance Roofing.<sup>6</sup>

The proposed project would not expose sensitive receptors to toxic air contaminants or other odors that would result in significant air quality impacts.

#### **4.3.3            Conclusion**

**Impact AQ-1:**            The proposed project with the implementation of the identified mitigation measures would not result in any significant air quality impacts. **(Less Than Significant Impact)**

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<sup>5</sup> California Air Resources Board, Air Quality & Land Use Handbook: A Community Health Perspective, April 2005.

<sup>6</sup> Bay Area Air Quality Management District, Public Records Request #07-08-91, August 23, 2007.

## 4.4 BIOLOGICAL RESOURCES

The following discussion is based in part on a Tree Survey prepared by *McClenahan Consulting, LLC* in May 2008. A copy of this report is included as Appendix A of this Initial Study.

### 4.4.1 Setting

The project site consists of an existing one-story office/R&D building that is surrounded by a paved surface parking lot and urban landscaping, including mature trees. Habitats in developed urban areas are extremely low in species diversity. Species that use this habitat are predominantly urban adapted birds, such as Rock Dove, Mourning Dove, House Sparrow, and Starling. Based upon the habitats found on the site, no special-status plant or animal species are expected to be present on the site.

#### 4.4.1.1 *City of San José Tree Ordinance*

The *City of San José Tree Ordinance* defines an ordinance-sized tree as any woody perennial plant characterized by having main stem or trunk which measures 18 inches or greater in diameter at a height of 24 inches above natural grade slope. A multi-stem tree is considered a single tree and measurement of that tree includes the sum of the diameter of the tree trunks of that tree.

A tree removal permit is required from the City for the removal of ordinance-sized trees. A survey of the site found a total of 166 trees on the project site, of which seven are ordinance-size and 159 are not ordinance-size. Of the seven ordinance-size trees on the site, one tree is an Evergreen ash, two are Coast redwoods, three are Melaleucas and one is an Italian stone pine. The tree survey results are shown in Table 4.4-1, below.

The City of Santa Clara does not have an adopted tree ordinance, although Santa Clara's General Plan 2000-2010 lists several tree-related policies and programs, including programs to develop a tree protection ordinance, continue the City's street tree program, and to require landscaping in all private development (with emphasis on native and drought-tolerant landscaping). A tree removal permit and tree replacement plan is required for the removal of City street trees on a project site and shall be addressed through the permitting of the project.

Tree Species	Diameter			Total
	1-11 inches	12-17 inches	18+ inches	
Aristocrat pear	25	-	-	25
Blackwood acacia	1	-	-	1
Chinese pistache	11	-	-	11
Coast redwood	30	14	2	46
Evergreen ash	10	10	1	21
Holly oak	5	-	-	5
Italian stone pine	15	18	1	34
Melaleuca	-	5	3	8
Purpleleaf plum	15	-	-	-
<b>Total</b>	<b>112</b>	<b>47</b>	<b>7</b>	<b>166</b>

#### 4.4.2 Environmental Checklist and Discussion

BIOLOGICAL RESOURCES						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
Would the project:						
1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
3) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,5
6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

##### 4.4.2.1 *Nesting Raptors*

Although the site is primarily used by species common to developed areas, some raptors (i.e., falcons, hawks, eagles, owls) may use the larger trees on the site for nesting. Nesting raptors are protected under provisions of the Migratory Bird Treaty Act (MBTA) and the California Department of Fish and Game (CDFG). The federal Migratory Bird Treaty Act (MBTA; 16 U.S.C., §703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. Construction disturbance on the site during the breeding season could

result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment, a violation of the Migratory Bird Treaty Act.

Migratory birds are also protected in California. The California Fish and Game Code §3503 emulates the federal MBTA and protects birds' nests and eggs from all forms of take. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by the California Department of Fish and Game (CDFG). Section 3503.5 states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." In addition, the State Code includes a section enforcing the Migratory Bird Treaty Act.

The proposed project may result in the disturbance of nesting raptors within the trees on and adjacent to the site. Construction during the nesting season could disturb or destroy occupied nests, which would result in the loss of eggs or young birds.

Implementation of the following standard measure would ensure that the project would not result in significant impacts to nesting raptors.

**Standard Measure:** The project proposes to implement the following standard measure:

**SM BIO-1:** If possible, construction should be scheduled between September and December (inclusive) to avoid the raptor nesting season. If this is not possible, pre-construction surveys for nesting raptors shall be conducted by a qualified ornithologist to identify active raptor nests that may be disturbed during project implementation. Between January and April (inclusive) pre-construction surveys shall be completed no more than 14 days prior to the initiation of construction activities or tree relocation or removal. Between May and August (inclusive), pre-construction surveys no more than thirty (30) days prior to the initiation of these activities. The surveying ornithologist shall inspect all trees in and immediately adjacent to the construction area for raptor nests. If an active raptor nest is found in or close enough to the construction area to be disturbed by these activities, the ornithologist, shall, in consultation with the State of California, Department of Fish & Game (CDFG), designate a construction-free buffer zone (typically 250 feet) around the nest. The applicant shall submit a report indicating the results of the survey and any designated buffer zones to the satisfaction of the City's Environmental Principal Planner prior to the issuance of any grading or building permit.

#### **4.4.2.2 Ordinance-Size Trees**

The project would likely result in the removal of all 166 trees on-site, including seven ordinance-size trees due to the need to raise the elevation of the site to address flood concerns.

In the event some trees on the site are determined to be suitable for retention on the site, implementation of standard tree protection measures would ensure that the project would not result in impacts to retained trees.

**Standard Measures:** The project proposes to implement the following standard measures:

**SM BIO-2:** Pre-construction treatments

- The applicant shall retain a consulting arborist. The construction superintendent shall meet with the consulting arborist before beginning work to discuss work procedures and tree protection.
- Fence all trees to be retained to completely enclose the TREE PROTECTION ZONE prior to demolition, grubbing or grading. Fences shall be 6 ft. chain link or equivalent as approved by consulting arborist. Fences are to remain until all grading and construction is completed.
- Prune trees to be preserved to clean the crown and to provide clearance. All pruning shall be completed or supervised by a Certified Arborist and adhere to the Best Management Practices for Pruning of the International Society of Arboriculture.

**SM BIO-3:** During construction

- No grading, construction, demolition or other work shall occur within the TREE PROTECTION ZONE. Any modifications must be approved and monitored by the consulting arborist.
- Any root pruning required for construction purposes shall receive the prior approval of, and be supervised by, the consulting arborist.
- Supplemental irrigation shall be applied as determined by the consulting arborist.
- If injury should occur to any tree during construction, it shall be evaluated as soon as possible by the consulting arborist so that appropriate treatments can be applied.
- No excess soil, chemicals, debris, equipment or other materials shall be dumped or stored within the TREE PROTECTION ZONE.
- Any additional tree pruning needed for clearance during construction must be performed or supervised by the consulting arborist, not by construction personnel.
- As trees withdraw water from the soil, expansive soils may shrink within the root area. Therefore, foundations, footings and pavements on expansive soils near trees shall be designed to withstand differential displacement.

**Impact BIO-1:** The project would result in the removal of 166 trees, including seven ordinance-size trees on the site. **(Significant Impact)**

**Mitigation Measures:** The project proposes to implement the following mitigation measures:

**MM BIO-1.1:** The proposed project shall replace trees removed at the following ratios:

<b>Diameter of Tree to be Removed</b>	<b>Non-Native</b>	<b>Minimum Size of Each Replacement Tree</b>
18 inches or greater	4:1	24-inch box
12 – 18 inches	2:1	24-inch box
Less than 12 inches	1:1	15-gallon container
Notes: X:X = Tree replacement to tree loss ratio Trees greater than 18-inches in diameter shall not be removed unless a Tree Removal Permit, or equivalent, has been approved for the removal of such trees.		

The species and exact number of trees to be planted on the site will be determined at the development permit stage, in consultation with the City Arborist and the Department of Planning, Building, and Code Enforcement. Trees for purposes of mitigation shall be planted at the above standard ratio to be determined at the permit stage.

**MM BIO-1.2:** If the project site does not have sufficient area to accommodate the required tree mitigation, one or more of the following measures shall be implemented, to the satisfaction of the Director of Planning, Building, and Code Enforcement, at the development permit stage:

- The size of a 15-gallon replacement tree can be increased to 24-inch box and count as two replacement trees.
- An alternative site(s) shall be identified for additional tree planting. Alternative sites may include local parks or schools or installation of trees on adjacent properties for screening purposes to the satisfaction of the Director of the Department of Planning, Building, and Code Enforcement.
- A donation of \$300 per mitigation tree to Our City Forest for in-lieu off-site tree planting in the community. These funds will be used for tree planting and maintenance of planted trees for approximately three years. A donation receipt for off-site tree planting will be provided to the Planning Project Manager prior to issuance of a development permit.

**4.4.3 Conclusion**

**Impact BIO-1:** The proposed project, with the implementation of the above mitigation (MM BIO-1.1 and -1.2) and standard measures (SM BIO-1 to SM BIO-3), would not result in significant impacts to biological resources. **(Less Than Significant Impact with Mitigation)**

## 4.5 CULTURAL RESOURCES

The following discussion is based upon an Archaeological Sensitivity Study prepared by *Albion Environmental, Inc.* in September 2005. This report is on file with the City of San José Department of Planning, Building, and Code Enforcement.

### 4.5.1 Setting

#### 4.5.1.1 *Background*

The project site has not been previously surveyed for cultural resources. Many archaeological surveys and excavations have taken place in the vicinity of the subject parcel, particularly around the third Santa Clara mission site (CA-SCL-30/H) located on and near the northwest portion of the adjacent Santa Clara University campus. These include recent archaeological studies for university development, periodic expansion of the university property, investigations conducted for the realignment of the El Camino Real around the university campus, and other projects such as utilities installation and archaeological field schools.

#### 4.5.1.2 *Prehistoric Resources*

The studies noted above demonstrate that the third mission site and the surrounding area, including most of the current university campus, are extremely sensitive for archaeological sites and features from both the Spanish-Mexican periods and the early historic town of Santa Clara. Although the approximate center of CA-SCL-30/H is the remains of the third mission church and compound at Franklin Street and State Route (SR) 82 (modern El Camino Real), the outside boundaries of this site are unknown and are likely distributed over a very large area, possibly including the project site. Additionally, within and adjacent to CA-SCL-30/H are the remains of prehistoric habitations (including native burials) dating from 1360 B.P. (640 AD) to the Spanish or Mission period. A large prehistoric site containing at least 29 human burials was previously recorded near the center of the current university campus, and several isolated burials have been located around the campus periphery. A large Mission-period native cemetery is also located in the area where Benton and Franklin streets intersect with SR 82, less than one-half mile northwest of the current project site.

Due to the high number and variety of prehistoric sites previously recorded in the vicinity of the project area, the parcel at 1270 Campbell Avenue is estimated as moderately sensitive for prehistoric resources. Though no such sites have been recorded in close proximity to this parcel, there have been few previous opportunities for test excavation or other archaeological studies within the industrial area along the railroad right-of-way. Historical records associated with the Santa Clara mission suggest that the project area was close to a natural lagoon or swamp that drained in a northeast direction toward the Guadalupe River. It is possible that this location may have been boggy and generally uninhabitable in prehistoric times. Such conditions, though not supportive of villages or other permanent sites, would tend to increase the potential for seasonal hunting sites or other resource procurement camps to exist in the project area.

#### 4.5.1.3 *Historic Resources*

During the Mission period at Santa Clara, the project site was located immediately east of the mission pear orchard, a roughly hexagonal-shaped area of approximately 15 acres adjacent to the third mission site. The former pear orchard, along with an additional parcel of approximately 25 acres along its southern boundary, currently comprises the university sports fields and the current

alignment of SR 82. During the active years at the mission, particularly between 1785 and 1810, it is likely that crop fields surrounded the mission and orchard areas, and that the project area was planted in wheat, corn or beans, or was grazed by the mission herds.

In 1844, the project area became part of the Rancho El Potrero de Santa Clara, a grant of 1,939 acres awarded by Governor Micheltorena to James Alexander Forbes. In 1846, Forbes sold portions of the rancho to Santa Clara College and the eastern portion to Robert F. Stockton, who subdivided part of his land for residential purposes, and developed another portion as a plant nursery. Between 1860 and 1862, Stockton’s Ranch was purchased by the San Francisco and San José Railroad (SF&SJRR) Company, and by 1864 the railroad was established along the east side of Santa Clara. While further subdivisions were made of the now-valuable lands adjacent to the railroad, and an 1873-75 plat map of Santa Clara indicates that the current project area was part of O’Brien’s Subdivision, it does not appear that O’Brien’s small lots were purchased by individuals but were most likely re-acquired by the powerful Southern Pacific Railroad (SPRR), which absorbed the SF&SJRR upon its establishment in 1874.

The current project area remained in the hands of SPRR until well into the twentieth century. It is likely that the railroad leased its right-of-way for the profitable development of fruit packing plants, canneries, and shipping warehouses, and one or more such facilities may have occupied the project area along Campbell Avenue. Following World War I, SPRR began to sell its excess right-of-way to companies such as Santa Clara Pear Growers and Security Warehouse and Cold Storage. As the canneries and fruit packers crowded in next to the railroad, SPRR expanded their yard in Santa Clara and added spur lines along Campbell Avenue to provide easier access. The current project area is considered extremely sensitive for historic resources, such as refuse and foundations associated with the SPRR or its supporting industries between the 1880s and the 1920s.

The historic record indicates that in modern times, the project area was occupied by a shipping facility in use through the 1980s. The existing building on the site was constructed in 1992 for use by Sanmina Corporation, a technology manufacturer.

**4.5.2 Environmental Checklist and Discussion**

CULTURAL RESOURCES						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
Would the project:						
1) Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6
2) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
3) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
4) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,6

#### 4.5.2.1 *Archaeological Resources*

The project site has been developed for industrial use for at least 30 years. There is no record of any previous archaeological investigations for the property. Many surveys and archaeological investigations, however, have been conducted to the west and north of this parcel and the findings of these studies suggest a moderate to high potential for buried prehistoric or historic sites or features throughout the entire area. The industrial nature of this property also suggests that a high level of ground disturbance (e.g., blading, filling, deep excavation for structural piers) has probably occurred during past development episodes. Disturbance caused by modern construction, using heavy equipment, may have damaged or destroyed any intact remains from previous occupations.

**Impact CULT-1:** The proposed project could result in impacts to buried prehistoric or historic archaeological resources on the site. **(Significant Impact)**

**Mitigation Measures:** The project proposes to implement the following mitigation measures to reduce impacts to archaeological resources:

**MM CULT-1.1:** A systematic inspection or survey of the present ground surface will provide archaeological data regarding post-depositional disturbance levels and shall be conducted by a qualified archaeologist. An archaeological survey of the entire parcel shall be completed after the present built environment (pavement, landscaping) is removed and preparation of the ground surface for new development begins. Depending on the results of the survey, it is recommended that a monitoring program be established in order that periodic inspections of subsurface levels be coordinated to allow careful examination of vertical and horizontal soil relationships between two and eight feet (below the present surface). The monitor must be pre-approved by the Director of Planning (or his designee). After written approval, the Planning Division must be notified at least 48 hours prior to any grading or other subsurface work on the site and the applicant must provide a written protocol which stipulates the manner in which the applicant shall comply with the monitoring requirements.

**MM CULT-1.2:** If no resources are discovered through the ground survey, the archaeologist shall submit a report to the City's Environmental Principal Planner verifying that the required monitoring occurred and that no further mitigation is necessary.

**MM CULT-1.3:** If evidence of any archaeological, cultural, and/or historical deposits is found, all work within proximity of the find shall temporarily halt so that the archaeologist can examine the find and document its provenience and nature (drawings, photographs, written description). The archaeological monitor will then direct the work to either proceed if the find is deemed to be insignificant, or instruct the work to continue elsewhere or cease until adequate mitigation measures are adopted. The archaeologist shall submit reports, to the satisfaction of the City's Environmental Principal Planner, describing the testing program and subsequent results. These reports shall identify any program mitigation that the Developer shall complete in order to mitigate archaeological impacts (including resource recovery and/or avoidance testing and analysis, removal, reburial, and curation of

archaeological resources). The key elements of the treatment plan shall include the following:

- Identify scope of work and range of subsurface effects (include location map and development plan).
- Describe the environmental setting (past and present) and the historic/prehistoric background of the parcel (potential range of what might be found).
- Develop research questions goals to be addressed by the investigation (what is significant vs. what is redundant information).
- Detail field strategy used to record, recover, or avoid the finds (photos, drawings, written records, provenance data maps, soil profiles, excavation techniques, standard archaeological methods) and address research goals.
- Analytical methods (radiocarbon dating, obsidian studies, bone studies, historic artifact studies [list categories and methods for artifacts], etc.).
- Report structure, outline of document contents (draft for review, final).
- Disposition of artifacts.
- Appendices: Site records, updated site records, correspondence, consultation with Native Americans, etc. The need for burial agreement plan for Native American burials can be incorporated into the treatment plan, but must be done in consultation with Most Likely Descendents. Plan should detail goals, methods, and disposition of remains and associated artifacts.

**MM CULT-1.4:**

In the event that human remains and/or cultural materials are found, all project-related construction shall cease within a 50-foot radius in order to proceed with the testing and mitigation measures required. Pursuant to Section 7050.5 of the Health and Safety Code and Section 5097.94 of the Public Resources Code of the State of California:

- In the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.
- A final report shall be submitted to the City's Environmental Principal Planner prior to release of a Certificate of Occupancy. This report shall contain a description of the mitigation programs and its results including a description of the monitoring and testing program, a list of the resources found, a summary of the resources analysis methodology and conclusions, and a description of the disposition/curation of the resources.

The report shall verify completion of the mitigation program to the satisfaction of the City’s Environmental Principal Planner.

**4.5.2.2**        *Historic Buildings*

The existing buildings on-site, due to their date of construction (1992) and lack of discernable architectural style, do not have historical significance at either the City, state, or national level. Demolition of the existing structures and development of the proposed project would have no impact on historic buildings.

**4.5.3**        Conclusion

**Impact CULT-1:**        Implementation of the identified mitigation measures would reduce impacts to archaeological resources to a less than significant level. **(Less Than Significant Impact with Mitigation)**

## 4.6 GEOLOGY AND SOILS

The following discussion is based in part on a Geotechnical Investigation prepared by *Cornerstone Earth Group* in September 2007. A copy of this report is included as Appendix B in this Initial Study.

### 4.6.1 Setting

#### 4.6.1.1 *Geology and Soils*

The project site is located in the Santa Clara Valley, a relatively flat alluvial basin, bounded by the Santa Cruz Mountains to the southwest and west, the Diablo Mountain Range to the east, and the San Francisco Bay to the north. The site is flat with the finished floor elevation of the existing building at approximately 64.5 feet. Soils on the site include Clear Lake clay, Sunnyvale silty clay, drained, and Orestimba silty clay loam. Soils on the site have a moderate to high expansion potential.

Groundwater is presumed to flow in a northeasterly direction below the site. This is consistent with the regional topography, which slopes gently toward the Guadalupe River, located approximately one mile to the northeast. The estimated depth to groundwater on the site is five feet.

#### 4.6.1.2 *Seismicity and Seismic Hazards*

The project site is located within the seismically active San Francisco Bay region. The Uniform Building Code designates the entire South Bay as Seismic Activity Zone 4, the most seismically active zone in the United States. The faults in the region are capable of generating very strong ground shaking at the project site during the life of the proposed structures. The fault closest to the project site is the Hayward Fault located approximately 9.4 miles northeast of the site. The San Andreas Fault is located approximately 11.1 miles to the southwest and the Calaveras Fault is located approximately 9.6 miles northeast of the site.

The U.S. Geological Survey's Working Group on California Earthquake Probabilities (2003), determined there is a 62% chance of at least one magnitude 6.7 or greater earthquake striking the San Francisco Bay region between 2003 and 2032.

### **Liquefaction**

Soil liquefaction results from loss of strength during cyclic loading, which can occur during earthquakes. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded fine-grained sands. The site is located within a State of California Seismic Hazard Zone for liquefaction. The potential for liquefaction is considered likely.

#### 4.6.2 Environmental Checklist and Discussion

GEOLOGY AND SOILS						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
Would the project:						
1) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:						
a) Rupture of a known earthquake fault, as described on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
b) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,7
c) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,7
d) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
2) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
3) Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,7
4) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,7
5) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

##### 4.6.2.1 Soils

The project site is underlain by expansive soils, with moderate to high shrink-swell potential, which may expand and contract as a result of seasonal or man-made soil moisture content changes. The potentially expansive soil conditions that could damage future structures and improvements will be avoided or minimized through proper design.

The project is underlain by undocumented fill up to two feet deep. Additional undocumented fill may be up to three feet thick beneath the existing building and between eight to 15 feet thick in the former UST area located beneath the central portion of the existing building (refer to *Section 2.7 Hazards and Hazardous Materials*) and Appendix B.

The proposed development is not expected to be exposed to significant impacts from slope instability, erosion, or landslide related hazards due to the flat topography on the site.

**Standard Measures:** The project proposes to implement the following standard measures:

**SM GEO-1:** A design level soils engineering investigation shall be prepared for the project site, which identifies the specific design features that will be required for the project, including site preparation, compaction, trench excavations, foundation and subgrade design, drainage, and pavement design. The geotechnical investigation shall be reviewed and approved by the City Geologist prior to issuance of a grading permit or Public Works Clearance for the project.

**SM GEO-2:** Best management practices will be used to prevent substantial erosion and siltation during development of the site.

#### **4.6.2.2 *Seismicity and Seismic Hazards***

Due to its location within a seismically active region, the project site would likely be subject to at least one moderate to major earthquake that could affect the proposed development on the site. The site would be subject to strong ground shaking in the event of a major earthquake on one of the region's active faults. The site is located in a liquefaction hazard zone, therefore, liquefaction and differential settlement could occur on the site during an earthquake. Liquefaction-induced settlement on the site of one-half to one and one-half inches could occur. Differential settlement of up to three-quarters of one inch could also occur.

Buildings constructed on the site under the proposed land use designation will conform to the Uniform Building Code Guidelines for Seismic Activity Zone 4 to avoid or minimize potential damage from seismic shaking on the site. Conformance with standard Uniform Building Code Guidelines would minimize potential impacts from seismic shaking on the site. Therefore, impacts from seismic activity and liquefaction will be less than significant.

**Standard Measures:** The project proposes to implement the following standard measures:

**SM GEO-3:** Impacts will be reduced through design and construction in conformance with standard engineering practices for liquefaction, and for impacts related to seismic shaking.

**SM GEO-4:** Seismic shaking hazards would be mitigated by implementation of construction practices in accordance with Seismic Zone 4 building criteria as described in the Uniform Building Code.

#### **4.6.3 Conclusion**

With the implementation of the standard measures described above (SM GEO-1 to SM GEO-4), which are included in the project, the proposed project would not result in significant geologic hazard impacts. **(Less Than Significant Impact)**

## 4.7 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based upon a Summary of Environmental Documents prepared for the site by *PES Environmental, Inc.* in October 2007 and a memorandum prepared by *PES Environmental, Inc.* in July 2008. These documents are included in Appendix C of this Initial Study. In addition, the discussion is based on a Vicinity Hazardous Materials Users Survey prepared by *Belinda P. Blackie, P.E., and R.E.A* in September 2007, and a Screening Level Vicinity Hazardous Materials Risk Appraisal prepared by *Risicare, LLC* in November 2007. These reports are included in Appendix D of this Initial Study.

### 4.7.1 Setting

#### 4.7.1.1 *Background Information*

Hazardous materials encompass a wide range of substances, some of which are naturally-occurring and some of which are man-made. Examples include pesticides, herbicides, petroleum products, metals (e.g., lead, mercury, arsenic), asbestos, and chemical compounds used in manufacturing. Determining if such substances are present on or near project sites is important because, by definition, exposure to hazardous materials above regulatory thresholds can result in adverse health effects on humans, as well as harm to plant and wildlife ecology. Since the proposed development would introduce a significant residential population onto the project site, it is relevant to determine what risks might be incurred.

Due to the fact that these substances have properties that are toxic to humans and/or the ecosystem, there are multiple regulatory programs in place that are designed to minimize the chance for unintended releases and/or exposures to occur. Other programs set forth remediation requirements at sites where contamination has occurred.

The project site is located adjacent to the UPRR right-of-way.<sup>7</sup> The historical use of herbicides along railroad corridors and the leaching of wood preserving compounds from railroad ties have been known to impact surface soils directly along the right-of-way as well as neighboring properties.

#### 4.7.1.2 *Site History*

The project site was undeveloped land prior to 1940 when a building was constructed on the site and occupied by a refrigeration company. The previous building was used for cold storage or food warehousing until it was demolished in order to construct the existing building in 1992. Sanmina Corporation used the site since the current building, which is now vacant, was constructed.

### **Underground Storage Tanks**

Four underground storage tanks (USTs) associated with the former cold storage/warehousing operations were historically present at the project site. Two gasoline storage tanks (one 750-gallon and one 1,500-gallon) were closed in place in August 1986 by filling them with cement slurry. These USTs were located in the northern portion of the site. Two soil samples were collected from beneath the tanks and analyzed for the presence of total petroleum hydrocarbons as gasoline (TPHg). No contaminants were detected at the location of these USTs.

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<sup>7</sup> The project site was located adjacent to a pear orchard during the Mission period but has not been known to have been used for agricultural purposes in modern times. The site was undeveloped land prior to 1940.

In 1993, two diesel USTs (one 5,000-gallon and one 10,000-gallon), also associated with former cold storage/warehousing operations, were removed from the central portion of site. Initial soil samples collected from beneath the tank identified the presence of TPH quantified as diesel (TPHd) at concentrations as high as 4,100 milligrams per kilogram (mg/kg). The tank pit was subsequently over excavated and excavated soil was disposed offsite. Confirmation soil samples indicated the presence of TPHd at concentrations of up to four mg/kg in sidewall samples and 560 mg/kg in one excavation bottom sample. Approximately 8,000 gallons of groundwater was extracted from the excavation pit. A groundwater sample detected TPHd at 1,100 micrograms per liter ( $\mu\text{g/L}$ ), and benzene, toluene, ethylbenzene, and xylene (BTEX) were reported at nondetectable to very low concentrations. BTEX is a group of volatile organic compounds found in petroleum hydrocarbons, such as gasoline, and is a common contaminant on former industrial sites with leaking USTs. Four groundwater monitoring wells were installed at the site and were sampled quarterly for five quarters. There were no detectable concentrations of TPHd or BTEX in any of the wells during any of the five samplings, except for one detection of TPHd in one well at 24,000  $\mu\text{g/L}$ . Because TPHd was non-detectable in the well for the following three quarters, the detection was considered anomalous and not representative of actual conditions. The Santa Clara Valley Water District (SCVWD) issued case closure for all USTs in June 1995.

The four groundwater monitoring wells associated with the leaking USTs previously on the site were destroyed in 2002 under a permit from SCVWD.

#### **4.7.1.3 *On-site Hazardous Materials Use***

Sanmina Corporation, the former occupant of the building on-site, has a Hazardous Materials Management Plan (HMMP) on file with the San José Fire Department (SJFD). Sanmina used and stored small quantities of thinners, resin, epoxy, paints, stains, and gases. Small quantities of waste compressor oil were also generated on the site but no violations for Sanmina are on file with the SJFD.

Numerous pieces of equipment and other materials were stored in the building parking area during the 2005 site inspection. A partially full 55-gallon drum labeled as containing a type of acid was present on the paved parking lot on site. No evidence of staining on the pavement beneath the drum or other evidence of leakage has been observed. These materials were removed from the site and relocated to Sanmina's facility at 2068 Bering Drive in San José. The 55-gallon drum was later sampled and determined to contain rainwater.

#### **4.7.1.4 *Potential Off-Site Sources of Soil and Groundwater Contamination***

Several sites close to the project site were identified in a search of regulatory agency databases. One such facility, located east of the site, was Custom Food Machinery at 1180-1184 Campbell Avenue that has since been redeveloped with residences. This site was the subject of an investigation that identified polychlorinated biphenyls (PCBs) in soil and volatile organic compounds (VOCs) in groundwater. A northerly groundwater flow was measured at the site, indicating this facility is cross-gradient from the project site. Remedial activities were performed at this site including long-term monitoring of groundwater to evaluate biodegradation of VOCs detected in groundwater, and excavation of PCB-containing soils. Based on the cross-gradient location of this facility from the project site, this facility does not pose a significant concern.

An additional site, AJ Commercial Laundry/AllChem Supply located at 1173-1175 Campbell Avenue, is approximately one-quarter mile from the project site. Investigations at this site have

identified the presence of VOCs in soil and groundwater. Additional investigations have been requested by the Department of Toxic Substances Control (DTSC) to identify the offsite extent of contamination. Groundwater flow ranging from the southeast to northeast has been measured at this site, indicating the facility is located down- to cross-gradient from the project site and, therefore, does not pose a significant concern to the project site.

The remaining nearby sites listed in the database report are not likely to affect the project site because these sites have either received case closure by the appropriate regulatory agency, are crossgradient or downgradient of the site with respect to groundwater flow, are listed as a soils-only affected case, and/or the sites are located at too great a distance to be a concern to the project site.

**4.7.1.5 Hazardous Materials Use and Storage in the Project Vicinity**

The project site is located in an area currently transitioning from industrial uses to residential uses. A survey of businesses in the project vicinity (within one-half mile) that are likely to use, handle, and/or store significant quantities of hazardous substances was completed that consisted of a visual survey and environmental document review, including San José Fire Department and Santa Clara Fire Department files. The vicinity survey also included review of registered hazardous gas facilities identified by the SJFD; however, no such facilities within the City of San José are present within one mile of the project site.

Based on this survey seven industrial facilities were identified as having the potential to result in impacts to the project site in the event of a worst-case accidental chemical release. These facilities were further reviewed by an industrial hygienist to identify and model the chemicals with the greatest potential to result in an impact to the proposed project. Three accidental chemical release scenarios were modeled for effects to the project. The facilities using the chemicals of concern include Alliance Roofing, Precision Specialties, and the San José Jet Center. A fourth facility, Variety Metals Finishing, was addressed separately in the chemical risk appraisal since this facility is subject to the California Accidental Release Prevention (CalARP) program due to the types and quantities of materials used at this facility. The results of the chemical release modeling are discussed in greater detail in *Section 4.7.2.2 Potential Sources of Risk Due to Accidental Chemical Releases*.

**4.7.2 Environmental Checklist and Discussion**

HAZARDS AND HAZARDOUS MATERIALS						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
Would the project:						
1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,8,9
2) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,8,9

HAZARDS AND HAZARDOUS MATERIALS						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
Would the project:						
3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
4) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,10
5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
6) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
7) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
8) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

**4.7.2.1 Potential On-Site Sources of Contamination**

Two gasoline USTs were closed in place at the subject property in 1986 with no reported evidence of residual soil contamination. Two diesel USTs were removed from the site in 1993 and evidence of residual petroleum hydrocarbons in soil was present at the excavation location. The maximum detected concentration of petroleum hydrocarbons in soil at the bottom of the 24 foot deep excavation was 560 mg/kg of TPHd. Although this concentration exceeds current Environmental Screening Levels (ESLs) for residential land use (100 mg/kg) it is only slightly above the commercial/industrial land use ESL of 500 mg/kg. The detected concentrations of petroleum hydrocarbons is not likely a risk to current or future users of the site due to the depth below ground surface and because there is no direct route of exposure at the ground surface. In addition the low volatility and mobility of TPHd, the absence of any significant concentration of more volatile BTEX compounds, and the likelihood of further degradation of the TPHd since the tanks were removed in 1993 further reduces the risk to future residents of the site. The results of previous groundwater sampling do not indicate any remaining environmental concerns at the subject property associated

with the USTs. The previous case closure issued for the project site was reviewed by the County of Santa Clara Department of Environmental Health, which determined the residual contamination associated with the removed underground storage tanks would not require additional remediation prior to the property being developed for residential use.<sup>8</sup>

Based on the conceptual site plan, the closed in-place USTs are located under the planned perimeter parking area at the north side of the site. The USTs would be removed and appropriately disposed of off-site as part of the proposed development on-site. Upon excavation of the USTs, the tank shells would be removed from the concrete and, depending on the condition of the shells, they would either be recycled or disposed of as hazardous waste if there are signs of residual contamination that cause the shells to be non-recyclable. The concrete within the tanks is anticipated to be disposed of as non-hazardous construction debris. The USTs that were removed from the site in 1993 were located in an area that would be under the parking garage and planned podium structure.

The project site is located adjacent to the UPRR right-of-way. The historical use of herbicides along railroad corridors and the leaching of wood preserving compounds from railroad ties have been known to impact surface soils directly along the right-of-way as well as neighboring properties. Soil impacts from herbicide application and leaching of wood preserving compounds are usually very limited in their vertical and lateral extent. These types of compounds have limited mobility in the environment and, therefore, it is not anticipated that significant levels of railroad-related chemicals would be found outside the railroad right-of-way. There are no exposed soils on the project site in the proximity of the railroad with the exception of imported landscaping materials along the fence line bordering the railroad tracks. In 1992, surface soils on the north end of the site that may have been exposed to historical railroad-related chemicals were graded, compacted, and capped with base rock and the existing asphalt parking and roadway. Previous surface soils that may have been impacted by railroad-related chemicals have the greatest potential to be exposed during excavation of the two closed in-place USTs. Based on the location of the two USTs, approximately 80 feet from the railroad tracks, the proposed excavation is not anticipated to encounter railroad-related chemicals; however, soils will be tested in the event visual or olfactory evidence (i.e. discoloration of soils or odors) is present when the USTs are removed.

The project proposes to import fill to raise the site elevation one to one and one-half feet in order to comply with the City's *Special Flood Hazard Area Regulations*. The project design therefore, further reduces the likelihood of exposure of future residents of the project to residual hydrocarbons, herbicides, and pesticides.

**Impact HM-1:** The project site may contain residual herbicides and other railroad-related chemicals, as well as two closed in place USTs. Workers on site could be exposed to residual chemicals during grading, construction, or excavation on site. These issues, if not properly addressed, would result in impacts to the proposed residential development. **(Significant Impact)**

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<sup>8</sup> Lee, Lani, Hazardous Materials Specialist II, Santa Clara County Department of Environmental Health. RE: Request for Review - Closed UST Case, 390 Bellomy St., San Jose, SCVWDID No. 07S1W01M01f. Email communication. May 13, 2008.

**Mitigation and Avoidance Measures:** The project proposes the following mitigation and avoidance measures to reduce impacts from hazardous materials to a less than significant level:

**MM HM-1.1:** The two closed in-place USTs, located under the planned perimeter parking area, shall be removed and properly disposed of off-site as part of the proposed redevelopment. The tank shells will be segregated from the concrete and, depending on the condition of the shells, will either be recycled or disposed of as hazardous waste if there are signs of residual contamination that cause the shells to be non-recyclable. The concrete within the tanks will likely be disposed as non-hazardous waste; however the final determination for disposition will be made by qualified personnel during removal. If required to determine either recycling and/or disposal options for these materials, sampling and analysis may be completed. Any materials determined to be hazardous waste will be managed in accordance with all applicable state and federal requirements for manifesting, transportation, and disposal. Soil sampling of the excavation pits will be completed, in the event visual or olfactory evidence (i.e. discoloration of soils or odors) is present when the USTs are removed.

**MM HM-1.2:** Contractors working on the redevelopment project during site grading, utility installation, and removal of the closed in-place USTs, shall incorporate routine safe work practices and dust control measures and shall adhere to standard worker health and safety procedures as required under the California Department of Occupational Safety and Health Administration (Cal-OSHA) regulations.

**MM HM-1.3:** In the event that evidence of unanticipated hazardous materials conditions is encountered, the contractor shall halt work and contact the applicant to arrange for oversight by a qualified engineer or geologist. The applicant shall submit a report to the appropriate regulatory agency and the City's Environmental Compliance Officer, for review and approval, detailing the assessment of the encountered materials and the need for additional mitigation.

**AM HM-1:** As part of the proposed redevelopment, the grade across the site would be raised by approximately one to one and one-half feet. The existing asphalt on the site would be removed including the asphalt that is in closest proximity to the railroad tracks. The existing baserock in this area would remain in place and the grade would be raised with imported soil and a new asphalt covered perimeter roadway and parking areas for the new development would be constructed. The redevelopment plans in the proximity of the railroad, therefore, would avoid disturbance of, or exposure to, subsurface soils that may have previously been exposed at the former surface of the pre-developed site to herbicides and pesticides.

#### **4.7.2.2 *Potential Sources of Risk Due to Accidental Chemical Releases***

As noted previously, there are seven facilities in the vicinity of the site that have the potential to impact the proposed project due to their use and storage of hazardous materials. Three chemical release scenarios with the potential to impact the project site were developed for three nearby industrial facilities. These facilities range in distance to the site from 100 feet to one-half mile. Modeling for the Alliance Roofing Company assumed the release of the entire contents of a 500 gallon propane tank located 100 feet from the project site. The Precision Specialties facility, located approximately 0.2 miles from the project site, was modeled for a release of a 55 gallon drum of methylene chloride into a secondary containment area. The San José Jet Center facility, located

approximately one-half mile from the project site was modeled for a release of 5,000 gallons of aviation gasoline.

The Bay Area Air Quality Management District recommends the use of American Industrial Hygiene Association's (AIHA) Emergency Response Planning Guidelines exposure level 2 (ERPG-2) as the threshold for evaluating significant exposure impacts. In addition, both the U.S. Environmental Protection Agency (EPA) Risk Management Program and CalARP define concentration endpoints for off-site consequence analysis of accidental releases of toxic substances. Typically these are ERPG-2 concentrations, where available, or an equivalent under these regulations. The ERPG-2 is defined as the maximum airborne concentration that a person can be exposed to for up to one (1) hour without permanent ill effects or impairment of person's ability to take protective actions. ERPG values are intended to provide estimates of concentration ranges where an individual reasonably might anticipate observing adverse effects as a consequence of exposure to the specific substance. The risk appraisal also relied on the Temporary Emergency Exposure Limits (TEEL-2) for chemicals where no ERPG was available. The TEEL-2 is defined as the maximum concentration in air below which it is believed nearly all individuals could be exposed without experiencing or developing irreversible or other serious health effects or symptoms that could impair their abilities to take protective action.

The results of the modeling analysis show that the release of methylene chloride from Precision Specialties and aviation gasoline from the San José Jet Center would not result in impacts to the proposed project. The Alliance Roofing Company facility at 1250 Campbell Avenue could have the potential to impact the site. The flammability hazard associated with a liquid propane release from this facility has the greatest potential to impact the site. Propane is widely and commonly used in residential settings, including in remote residential locations for heating and cooking. A spill would likely occur during fuel delivery when a hose is disconnected. Given that fuel deliverers are trained to follow industry standard practice for tank filling and the lack of readily available information on the frequency of incidences, such as the one modeled, the potential for the project to be impacted by such a scenario is considered unlikely. In addition, the 2006 California Fire Code includes minimum separation distances to be maintained between liquefied petroleum gas tanks and buildings. Aboveground 500 gallon propane tanks are required to be set back 10 feet from buildings. The proposed PD zoning includes a minimum 45 foot set back from the eastern property line between the project site and Alliance Roofing Company. Given that the proposed building would adhere to the California Fire Code setback distances from the existing propane tank on the adjacent property, the propane tank would not represent a significant hazard to the proposed project and, therefore, would not result in a significant impact.

A fourth facility, Variety Metal Finishing was also reviewed for the potential of a chemical release to impact the project site. As mentioned in Section 4.7.1.5, this facility is subject to the California Accidental Release Prevention Program (CalARP), which is the Federal Risk Management Plan Program with additional state requirements, including an additional list of regulated substances and thresholds. At this facility, metal parts are dipped into tanks containing cleaning and plating solutions. The facility is subject to the CalARP program as a stationary source that stores and/or uses more than a threshold quantity of two regulated chemicals: nitric acid and potassium cyanide. As part of the CalARP program, Variety Metal Finishing has a Risk Management Plan (RMP) in place. The intent of the RMP is to provide basic information that may be used by first responders in order to prevent or mitigate damage to the public health and safety and to the environment from a release or threatened release of a hazardous material; and to satisfy federal and state Community Right-to-Know laws.

Based on the RMP, release scenarios were modeled for both a worst-case and an alternative release scenario (seismic event) for both chemicals. EPA and CalARP regulations establish two types of accidental release scenarios: 1) the largest theoretical release (“worst-case release scenario”) and a more likely release scenario (“alternative release scenario”) under the meteorological and topographical conditions as required by these regulations. Both EPA’s RMP and CalARP’s guidance and regulations have defined the worst-case release scenario as the total release of the largest quantity of a regulated substance from a single vessel or process line failure that results in the greatest distance to an endpoint under conservative meteorological conditions, which typically occur only at night when most people are sleeping. Worst-case release scenarios represent the failure modes that would result in the worst possible off-site consequences, however unlikely, and do not represent more likely smaller releases that would potentially result in smaller impacts. Both the federal and state programs define the alternative release scenarios as those that are more likely to occur than the worst-case release scenario and that reach an endpoint offsite, unless no such scenario exists. As in the worst-case release scenario, alternative release scenarios are hypothetical scenarios based on process knowledge, health and safety systems and practices and history of the facility, but the probability of the release to occur is not required to be calculated and reported. As a result, even the alternative release scenario may describe an unlikely event.

The endpoints evaluated in the Variety Metal Finishing RMP for nitric acid and the hydrogen cyanide generated from the potassium cyanide, are EPA Risk Management Program endpoints as recommended by CalARP guidance.<sup>9</sup> The endpoints selected in the EPA’s Risk Management Program “are concentrations below which it is believed nearly all individuals could be exposed for one-half to one hour without any serious health effects.”<sup>10</sup>

The risk assessment modeling data which projects the distance to endpoint (the distance the substance could travel before dispersing enough to no longer pose a serious hazard to the general public) for the worst-case scenario for nitric acid was a radius of 1,584 feet, and for potassium cyanide was a radius of 1,056 feet. The modeled distance to endpoint for the alternative release scenario was a radius of 528 feet for both nitric acid and for potassium cyanide. The worst-case release scenarios for nitric acid and potassium cyanide show that nitric acid has the potential to reach the project site but the potassium cyanide release would not. Under the worst-case release scenario, the modeled distance to endpoint for nitric acid would only extend onto a portion of the site located in the City of San José. Under the alternative release scenario, a release of either of these substances would not impact the project site. The City of San José has relied on the alternative release scenario as the basis to determine significant impacts to residential development from accidental chemical release in the project area, because this scenario acknowledges the process knowledge, and health and safety systems and practices the specific facility has incorporated, in response to participating in the RMP program, and, therefore, represents a more credible release scenario. Based on the alternative release scenario contained in the RMP for Variety Metal Finishing, future residents of the proposed project site would not be significantly impacted by the accidental chemical releases modeled in this study.<sup>11</sup>

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<sup>9</sup> 2005. Governor’s Office of Emergency Services. California Accidental Release Prevention (CalARP) Program Administering Agency Guidance.

<sup>10</sup> United States Environmental Protection Agency (USEPA). 2004. General Guidance on Risk Management Programs for Chemical Accident Prevention. Office of Solid Waste and Emergency Response. EPA-550-B-04-001. April.

<sup>11</sup> Modeling of accidental chemical releases from the Variety Metals Finishing facility prepared subsequent to the RMP confirms the project would not be significantly impacted due to an accidental chemical release.

Based on a review of current industrial facilities using their current hazardous materials in their current quantities in the vicinity of the project site, none of these facilities would impact the site if the alternative release were to occur. The impact of locating the proposed residential project near these industrial facilities is, therefore, less than significant.

**Avoidance Measure:** The project proposes to implement the following measure to avoid impacts from the use of hazardous materials adjacent to the site:

**AM HM-2:** In accordance with the 2007 California Fire Code, the project proposes to maintain a minimum 10-foot setback from the eastern property line of the site to avoid impacts from a 500-gallon aboveground propane tank located on the Alliance Roofing property.

#### 4.7.3 Conclusion

**Impact HM-1:** The project with the implementation of the identified mitigation measures would reduce hazardous materials impacts to a less than significant level.  
**(Less Than Significant Impact with Mitigation)**

## 4.8 HYDROLOGY AND WATER QUALITY

### 4.8.1 Setting

#### 4.8.1.1 *Drainage*

The project site is part of the Guadalupe River watershed. The Guadalupe River is located approximately one mile northeast of the project site. The Guadalupe River originates in the Santa Cruz Mountains and flows in a northerly direction until it discharges to San Francisco Bay.

The average annual rainfall in San José is approximately 14 inches, although precipitation can vary greatly year-to-year. Ninety-eight percent of the annual precipitation is received during the period from October through May. Storm runoff within the urbanized areas of the City of San José is discharged into local storm drains, which in turn flow to the creeks and ultimately to the Bay. The Santa Clara Valley Water District (SCVWD) has jurisdiction over most of the creek channels that collect runoff from the storm drains serving urban areas.

The project site is currently developed with an office building, a paved parking lot, and landscaping. Approximately 81 percent of the project site is impervious and the remaining 19 percent of the site is pervious landscape area. The project site drains to the Guadalupe River through a 12 to 18-inch storm drain located on Campbell Avenue near the southeast corner of the project site.

#### 4.8.1.2 *Regulatory Requirements*

##### **City of San José Post-Construction Urban Runoff Management (Policy 6-29)**

The City of San José's Policy No. 6-29 requires all new and redevelopment projects to implement Post-Construction Best Management Practices (BMPs)<sup>12</sup> and Treatment Control Measures (TCMs)<sup>13</sup> to the maximum extent practicable. This Policy also establishes specific design standards for Post-Construction TCMs for projects that create, add, or replace 10,000 square feet or more of impervious surfaces.

##### **City of San José Post-Construction Hydromodification Management (Policy 8-14)**

In 2005, the City of San José adopted the *Post-Construction Hydromodification Management* (Policy 8-14) to manage development related increases in peak runoff flow, volume and duration, where such

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<sup>12</sup> Post-Construction Best Management Practices (BMPs) are methods, activities, maintenance procedures, or other management practices designed to reduce the amount of stormwater pollutant loading from a site. Examples of Post-Construction BMPs include proper materials storage and housekeeping activities, public and employee education programs, and storm inlet maintenance and stenciling.

<sup>13</sup> Post-Construction Treatment Control Measures are site design measures, landscape characteristics or permanent stormwater pollution prevention devices installed and maintained as part of a new development or redevelopment project that is designed to reduce stormwater pollution loading from the site; is installed as part of a new development or redevelopment project; and is maintained in place after construction has been completed. Examples of runoff treatment control measures include filtration and infiltration devices (e.g., vegetative swales/biofilters, insert filters, and oil/water separators) or detention/retention measures (e.g., detention/retention ponds). Post-Construction TCMs are a category of BMPs.

hydromodification<sup>14</sup> is likely to cause increased erosion, silt pollution generation, or other impacts to local rivers, streams, and creeks.

Policy 8-14 requires stormwater discharges from new and redevelopment projects that create or replace one acre (43,560 square feet) or more of impervious surfaces to be designed and built to control project-related hydromodification, where such hydromodification is likely to cause increased erosion, silt pollutant generation, or other impacts to beneficial uses of local rivers, streams, and creeks. The Policy establishes specified performance criteria for Post-Construction Hydromodification Control Measures (HCMs) and identifies projects that are exempt from HCM requirements. For example, projects that do not increase the impervious area of a site, projects that drain to exempt channels, or projects that discharge to stream segments that are either tidally influenced or hardened to the Bay.

#### 4.8.1.3 *Flooding*

According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM), the project site is located within Zone AH, with a base flood elevation<sup>15</sup> of 63 feet, which is defined as a 100-year flood area with average flood elevations of one to three feet.<sup>16</sup>

The site is located within a dam failure inundation hazard area.<sup>17</sup> Flood waters associated with a catastrophic dam failure at Lexington Reservoir would result in flooding at the site.

The Lenihan Dam along Los Gatos Creek is located approximately 10.33 miles southwest of the project site. The dam is made of rolled earthfill and was constructed in 1952 to create Lexington Reservoir. The dam is operated by the Santa Clara Valley Water District (SCVWD) and is used for groundwater recharge on the west side of Santa Clara Valley. The dam has a storage capacity of approximately 19,044 acre-feet.

In the 1980s, the State Office of Emergency Services required that dam inundation maps be prepared for all dams in the state. The purpose of the maps is to provide information to local emergency service agencies that allows them to plan for a response in the event of a dam failure. The project site is located in the dam inundation area of Lexington Reservoir. Dams operated by the SCVWD are inspected twice each year and are continuously monitored for seepage and settling and inspected immediately following significant earthquakes.

The Lenihan Dam has experienced outlet pipe buckling since the late 1980s. Therefore, the state Division of Safety of Dams has imposed restrictions on the discharges from the outlet pipe which

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<sup>14</sup> Hydromodification occurs when the total area of impervious surfaces increases resulting in the decrease of rainfall infiltration, which causes more water to run off the surface as overland flow at a faster rate. Storms that previously did not produce runoff from a property under previous conditions can produce erosive flows in creeks. The increase in the volume of runoff and the length of time that erosive flows occur intensifies sediment transport, increasing creek scouring and erosion and causing changes in stream shape and conditions, which can, in turn, impair the beneficial uses of the stream channels.

<sup>15</sup> "Base flood elevation" or "BFE" is the computed elevation to which the flood water is anticipated to rise during the base flood.

<sup>16</sup> Federal Emergency Management Agency. Flood Insurance Rate Map. Community Panel No. 0603490018D per letter of map revision dated 25 October 2006.

<sup>17</sup> Association of Bay Area Governments. Dam Failure Inundation Hazard Map for Northwest San José/Milpitas/Santa Clara. 20 October 2003. ABAG. 16 October 2007. <http://www.abag.ca.gov/cgi-bin/pickdamx.pl>; <http://gis.abag.ca.gov>

reduces reservoir operations. If the outlet pipe buckling is not corrected and flows continue to be restricted, a heavy rain season could lead to flooding around the reservoir. The SCVWD has proposed construction of a new outlet pipe for the reservoir. The project was begun in Fall 2007 and is expected to be completed in Summer 2009.<sup>18</sup> Construction of the new outlet pipe would allow the SCVWD to release water more efficiently from the reservoir during dry months. Due to frequent inspections of the dam, catastrophic failure is considered unlikely.

The site is not subject to seiche<sup>19</sup> or tsunami.

#### 4.8.2 Environmental Checklist and Discussion

HYDROLOGY AND WATER QUALITY						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
Would the project:						
1) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
2) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
3) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
4) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
5) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1

<sup>18</sup> Santa Clara Valley Water District. Fact Sheet: Lexington Reservoir and Lenihan Dam. March 2007. Accessed: 16 October 2007.

<sup>19</sup> A seiche is an oscillation of the surface of a lake or landlocked sea varying in period from a few minutes to several hours. Seiches are often generated by small oscillations from earthquakes.

HYDROLOGY AND WATER QUALITY						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
Would the project:						
6) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
7) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,11
8) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11,12
9) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,13
10) Be subject to inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

4.8.2.1 *Water Quality*

**Post-Construction Impacts**

Currently, 81 percent of the project site is impervious and 19 percent of the project site is pervious (refer to Table 4.8-1). The project proposes to demolish and remove the existing structures and portions of the surface parking areas on-site and construct up to 259 residential units.

Table 4.8-1 Pervious and Impervious Surfaces Comparison						
Site Surface	Existing/Pre-Construction (sf)	%	Project/Post-Construction (sf)	%	Difference (sf)	%
<i>Impervious Surfaces</i>						
Building Footprint	88,427	39%	89,298	40%	+871	>1%
Parking	85,378	38%	54,779	24%	-30,599	-14%
Sidewalks, Patios, Paths, etc.	9,147	4%	48,023	21%	+38,876	+17%
<i>Subtotal</i>	182,952	81%	192,100	85%	+9,148	+4%
<i>Pervious Surfaces</i>						
Landscaping	43,560	19%	34,412	15%	-9,148	-4%
<i>Subtotal</i>	43,560	19%	34,412	15%	-9,148	-4%
<b>Total</b>	226,512	100%	226,512	100%	0	0

The proposed conceptual design for the site would result in approximately 85 percent of the site covered with impervious surfaces and approximately 15 percent of the site would be pervious

landscape areas. The development of the proposed project, therefore, would result in an increase of impervious surfaces on the site which would increase the amount of runoff from the project site. The project would result in an incremental increase in runoff from the site; however, it is not anticipated to exceed the capacity of existing drainage facilities.

Stormwater from urban uses contains metals, pesticides, herbicides, and other contaminants such as oil, grease, lead, and animal waste. Runoff from the proposed project may contain increased oil and grease from parked vehicles, as well as sediment and chemicals (i.e., fertilizers and pesticides) from landscaped areas.

The project would increase traffic and human activity on and around the project site, generating more pollutants and increasing dust, litter, and other contaminants that would be washed into the storm drain system. The project, therefore, would generate an increase in water contaminants that could be carried downstream in stormwater runoff from paved surfaces on the site. The project currently proposes the use of mechanical stormwater treatment units in order to comply with the requirements of Policy 6-29, and if applicable, Policy 8-14.

Implementation of the following standard measures would ensure the project would not result in significant post-construction water quality impacts.

**Standard Measures:** The project proposes to implement the following standard measures to reduce and avoid post-construction water quality impacts:

- SM HYD-1:** Prior to the issuance of a Planned Development Permit, the applicant must provide details of specific Best Management Practices (BMPs), including, but not limited to, bioswales, disconnected downspouts, landscaping to reduce impervious surface area, mechanical treatment devices, and inlets stenciled “No Dumping – Flows to Bay” to the satisfaction of the Director of Planning, Building and Code Enforcement.
- SM HYD-2:** The project shall comply with Provision C.3 of NPDES permit Number CAS0299718, which provides enhanced performance standards for the management of stormwater of new development.
- SM HYD-3:** The project shall comply with applicable provisions of the following City Policies – 1) Post-Construction Urban Runoff Management Policy (6-29) which establishes guidelines and minimum BMPs for all projects and 2) Post-Construction Hydromodification Management Policy (8-14) which provides for numerically sized (or hydraulically sized) TCMs.

### **Construction-Related Impacts**

Construction of the proposed project, as well as demolition, grading, and excavation activities, may result in temporary impacts to surface water quality. Demolition of the existing buildings and construction of the proposed project would also result in a disturbance to the underlying soils, thereby increasing the potential for sedimentation and erosion. When disturbance to underlying soils occurs, the surface runoff that flows across the site may contain sediments that are ultimately discharged into the storm drain system.

Implementation of the following standard measures would ensure the project would not result in significant construction-related water quality impacts.

**Standard Measures:** The project proposes to implement the following standard measures to reduce and avoid water quality impacts:

**SM HYD-4:** Prior to the commencement of any clearing, grading or excavation, the project shall comply with the State Water Resources Control Board’s National Pollutant Discharge Elimination System (NPDES) General Construction Activities Permit, to the satisfaction of the Director of Public Works, as follows:

- The applicant shall develop, implement and maintain a Storm Water Pollution Prevention Plan (SWPPP) to control the discharge of stormwater pollutants including sediments associated with construction activities;
- The applicant shall file a Notice of Intent (NOI) with the State Water Resources Control Board (SWRCB).

**SM HYD-5:** The project shall incorporate Best Management Practices (BMPs) into the project to control the discharge of stormwater pollutants including sediments associated with construction activities. Examples of BMPs are contained in the publication *Blueprint for a Clean Bay*. Prior to the issuance of a grading permit, the applicant may be required to submit an Erosion Control Plan to the City Project Engineer, Department of Public Works, 200 E. Santa Clara Street, San Jose, California 95113. The Erosion Control Plan may include BMPs as specified in the Association of Bay Area Governments’ (ABAG) Manual of Standards Erosion & Sediment Control Measures for reducing impacts on the City’s storm drainage system from construction activities. For additional information about the Erosion Control Plan, the NPDES Permit requirements or the documents mentioned above, please call the Department of Public Works at (408) 535-8300.

**SM HYD-6:** The project applicant shall comply with the City of San Jose Grading Ordinance, including erosion and dust control during site preparation and with the City of San Jose Zoning Ordinance requirements for keeping adjacent streets free of dirt and mud during construction. The following specific BMPs will be implemented to prevent stormwater pollution and minimize potential sedimentation during construction:

- Restriction of grading to the dry season (April 15 through October 15);
- Utilize on-site sediment control BMPs to retain sediment on the project site;
- Utilize stabilized construction entrances and/or wash racks;
- Implement damp street sweeping;
- Provide temporary cover of disturbed surfaces to help control erosion during construction;
- Provide permanent cover to stabilize the disturbed surfaces after construction has been completed.

#### **4.8.2.2 Flooding**

As discussed above, the project site is located within the 100-year flood hazard zone (Zone AH) and is subject to up to three feet of flooding. The base flood elevation for the site is 63 feet. The City’s *Special Flood Hazard Area Regulations* (Municipal Code Chapter 17.08), specifies that the lowest finished floor of all new construction of any residential, nonresidential or mixed-use structure shall be elevated to or above the base flood elevation specified on the FIRM.

The project site would be elevated to avoid impacts from flooding. The lowest finished floor elevation would be 64.3 feet for the westernmost townhouse units proposed along the Campbell Avenue project frontage. The proposed parking garage would be 65 feet in elevation.

The *Special Flood Hazard Area Regulations* require that upon completion of the structure, the director or a registered professional engineer or surveyor shall certify that the structure is elevated to the base flood elevation and, if certified by a professional engineer or surveyor, shall provide such certification to the Director of Public Works as set forth in Section 17.08.310.

The proposed project was reviewed by *Schaaf & Wheeler Consulting Civil Engineers* to ensure the proposed development would not impact the elevation of the 100-year flood (refer to Appendix E). The proposed development does not block the release of ponded water resulting from the 100-year flood and therefore would not impact the 100-year floodplain.

**Impact HYD-3:** The proposed project would develop structures within a 100-year flood zone. **(Significant Impact)**

**Mitigation Measure:** The project proposes to implement the following mitigation measures:

**MM HYD-3.1:** Comply with the City of San José *Special Flood Hazard Area Regulations* and City’s Floodplain Management Ordinance, including providing certification of the lowest floor elevation on N.G.V.D datum by a registered professional engineer or surveyor to the Director of Public Works, as set forth in Section 17.08.310.

**MM HYD-3.2:** Obtain an Elevation Certificate (FEMA Form 81-31) based on construction drawings prior to issuance of a building permit. An Elevation Certificate based on finished construction is also required prior to issuance of an occupancy permit.

**MM HYD-3.3:** Elevate building support utility systems such as HVAC, electrical, plumbing, air conditioning equipment, including ductwork, and other service facilities above the base flood elevation or otherwise protected from flood damage.

#### 4.8.3 Conclusion

**Impact HYD-1:** The proposed project, with the implementation of the identified standard measures (SM HYD-1 to SM HYD-3), would not result in post-construction stormwater quality impacts. **(Less Than Significant Impact)**

**Impact HYD-2:** The proposed project, with the implementation of the identified standard measures (SM HYD-4 to SM HYD-6), would not result in any significant construction-related water quality impacts. **(Less Than Significant Impact)**

**Impact HYD-3:** The proposed project, with the implementation of the identified mitigation measures, would not result in significant flooding impacts. **(Less Than Significant Impact with Mitigation)**

## 4.9 LAND USE

### 4.9.1 Setting

#### 4.9.1.1 *Existing Land Use*

The approximately 5.18-acre project site is located on the north side of Campbell Avenue approximately 2,000 feet northwesterly of Newhall Street at 1270 Campbell Avenue in the City of San José and City of Santa Clara. The project site consists of a single-story office/R&D building surrounded by surface parking lots and landscaping.

#### 4.9.1.2 *Surrounding Land Uses*

The project site is located immediately adjacent to industrial uses in the City of San José. Some properties along Campbell Avenue have recently been redeveloped creating a mix of light industrial and residential development in the area. A roofing business (Alliance Roofing Company) is located directly east of the site. The UPRR tracks are adjacent to the north of the site. The parcel to the northwest is currently developed with a two-story office/R&D building. The property south of the site was redeveloped with the Santa Clara University baseball stadium in 2005. Apartments were constructed in 2005 south of the baseball stadium site in the City of Santa Clara. The City of San José has approved approximately 376 residential units on Campbell Avenue, east of the site, which are either completed or currently under construction.

#### 4.9.1.3 *Land Use Plans*

##### **General Plan Land Use Designation**

A General Plan Amendment (GP05-03-02) was approved for the site by the San José City Council in June 2006. The approved amendment changed the City of San José General Plan land use designation on the site from *Light Industrial* to *High Density Residential (25-50 DU/AC)*. The proposed PD zoning would allow development of up to 259 residential units on the site proposed to be used for rental housing. The proposed project would be consistent with the City of San José General Plan land use designation for the site.

The project site is designated for *Gateway Thoroughfare* use in the City of Santa Clara General Plan. The *Gateway Thoroughfare* designation is primarily a commercial land use that is intended to be neighborhood and pedestrian friendly and provide additional housing opportunities in conjunction with high quality commercial uses at 19 to 25 DU/AC. Although the proposed project includes residential uses, the density proposed is inconsistent with the City's General Plan land use designation for the site. The City of Santa Clara will have to make findings that the majority of the site is located in the City of San José and the whole of the project is consistent with the General Plan designation assigned to property located within San José's jurisdiction.

##### **Zoning Designation**

The project site in the City of San José is zoned *HI – Heavy Industrial* which is intended for industrial uses with nuisance or hazardous characteristics which for reasons of health, safety, environmental effects, or general welfare are best segregated from other uses. The site is zoned *ML –*

*Light Industrial* by the City of Santa Clara.<sup>20</sup> The City of Santa Clara is a Charter City and therefore, under state law zoning within the City is not required to conform to the General Plan. Under the City of Santa Clara’s Zoning Ordinance, the City Council may approve a *Planned Development (PD)* zoning if findings can be made that the project is consistent with the intent of Santa Clara’s General Plan policies.

**Santa Clara BART Station Area Plan**

The City of Santa Clara, City of San José, and VTA are working together on a plan for the area around the Santa Clara Transit Center. The Transit Center is currently served by Caltrain, Altamont Commuter Express (ACE), and VTA bus lines. Additionally, future plans call for an Automated People Mover (APM) system that would connect Norman Y. Mineta San José International Airport with both the Transit Center and VTA’s Metro/Airport light rail station. The VTA is currently working to extend BART from Fremont to Silicon Valley, with the Santa Clara Transit Center forming the terminus of this extension. With completion of the BART extension to Santa Clara, direct rail service will be provided to virtually all parts of the San Francisco Bay Area and the Transit Center will become a key intermodal hub in the region. The project planning area consists of approximately 432 acres in the Cities of Santa Clara and San José. The plan will provide the foundation for revitalization and redevelopment within the planning area.<sup>21</sup> The Draft Preferred Plan currently being considered (October 2007) proposes *Medium/High Density (25-50 DU/AC)* residential land uses for the site.

**4.9.1.4 Other Plans**

The project site is not part of a habitat conservation plan or natural community conservation plan.

**4.9.2 Environmental Checklist and Discussion**

LAND USE	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
Would the project:						
1) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
2) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2,14, 15,16, 17
3) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

<sup>20</sup> Fernandez, Debby, Assistant Planner. Phone communication. 2 May 2008.

<sup>21</sup> Santa Clara Station Area Plan, 24 May 2007. [Santa Clara Station Area Plan](http://www.santaclarasap.com/index.php). 14 June 2007.

#### 4.9.2.1 Conformance with Land Use Plans

##### General Plan

The proposed PD zoning would allow development of 50 DU/AC. The project, therefore, is consistent with the City of San José General Plan land use designation for the site.

The proposed PD zoning is not consistent with densities allowed for the City of Santa Clara General Plan land use designation of *Gateway Thoroughfare (19-25 DU/AC)*. The *Gateway Thoroughfare* designation was originally intended to allow residential development in existing commercial areas of the City. Since adoption of the *General Plan 2000-2010*, nearby commercial development sites have converted to *Institutional* and *Transit-Oriented Mixed Use* land uses, which have created a mix of commercial, residential, and institutional uses in the project area. The proposed high density residential development, therefore, would be compatible with the surrounding mix of land uses in the City of Santa Clara and would support the existing transit center. The project would provide pedestrian friendly development which is consistent with the design guidelines for this land use designation and housing policies to provide housing in proximity to transit. As previously stated, the City of Santa Clara is a Charter City and state law does not require zoning consistency with the General Plan. Under the City's Zoning Ordinance, the project could be found consistent with the existing Santa Clara General Plan designation for the site by proposing a Planned Development (PD) zoning and determination of the necessary findings for rezoning approval.

The City of Santa Clara has an affordable housing requirement that is applied to residential projects with ten or more units. The policy requires the developer to provide at least ten percent of the total number of units at rents or prices to low and moderate income households commensurate with the City's regional fair share requirement. The proposed project does not provide affordable housing units and is therefore inconsistent with the City of Santa Clara's General Plan policy for affordable housing.

**Impact LU-1:** The proposed project would not provide any affordable units on the project site which is inconsistent with City of Santa Clara requirements. (**Significant Impact**)

**Mitigation Measure:** The project proposes the following mitigation measure to reduce the project's land use impacts to a less than significant level:

**MM LU-1.1:** The project proposes to pay in-lieu housing fees to the City of Santa Clara to provide for affordable housing in the city.

##### Zoning

The project proposes to rezone the portion of the project site in the City of San Jose from *HI – Heavy Industrial* to *A(PD) – Planned Development* to allow high density residential development consistent with the existing General Plan land use designation on the site. The proposed project is not consistent with the existing zoning for the site and would place residential development adjacent to land uses typically considered incompatible. The proposed PD zoning, however, adheres to the perimeter setbacks from incompatible land uses identified in the City of San José's *Residential Design Guidelines*. The proposed high density residential development, therefore, would be compatible with the surrounding land uses and would not conflict with plans adopted for the purpose of avoiding or mitigating an environmental impact.

The project proposes to rezone the portion of the project site in the City of Santa Clara from *ML – Light Industrial* to *Planned Development (PD)*. The Santa Clara City Council, could make findings that the proposed PD zoning is consistent with the intent of the General Plan land use designation on the site and is compatible with nearby development in the City of Santa Clara.

#### **4.9.2.2        *Spill Light Impacts***

Lighting during events and practices at the Santa Clara University (SCU) baseball stadium minimally increases nighttime light levels in the project area. It is estimated that SCU hosts 16 evening home games and evening tournament events per year. The number of practices requiring the use of lighting is unknown. The lights are equipped with spill and glare control shields that direct the light onto the field and away from adjacent development. Due to the infrequency of the stadium lighting and the spill and glare controls in place, the spill light resulting from the use of the stadium is considered a less than significant land use compatibility impact.

#### **4.9.3        Conclusion**

**Impact LU-1:**        The proposed project would offset its inconsistency with the City of Santa Clara’s affordable housing policy through the payment of in-lieu housing fees to provide affordable housing in the City of Santa Clara. **(Less Than Significant Impact with Mitigation)**

**4.10 MINERAL RESOURCES**

**4.10.1 Setting**

The project site is located within a developed urban area. It does not contain any known or designated mineral resources.

**4.10.2 Environmental Checklist and Discussion**

MINERAL RESOURCES						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
Would the project:						
1) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
2) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2

According to the City of San José 2020 General Plan, there are no mineral deposits outside the Communications Hill Area of statewide significance. The project site is not located in an area known to contain mineral deposits of statewide or regional significance.

**4.10.3 Conclusion**

The proposed project would not result in impacts to known mineral resources. **(No Impact)**

## 4.11 NOISE AND VIBRATION

The following discussion is based upon an Environmental Noise Assessment completed for the project by *Illingworth & Rodkin* in June 2008. A copy of this report is included in Appendix F of this Initial Study.

### 4.11.1 Setting

#### 4.11.1.1 *Introduction*

##### **Fundamentals of Environmental Noise**

Noise is measured in “decibels” (dB) which is a numerical expression of sound levels on a logarithmic scale. A noise level that is ten dB higher than another noise level has ten times as much sound energy and is perceived as being twice as loud. Sounds less than five dB are just barely audible and then only in absence of other sounds. Intense sounds of 140 dB are so loud that they are painful and can cause damage with only a brief exposure. These extremes are not commonplace in our normal working and living environments. An “A-weighted decibel” (dBA) filters out some of the low and high pitches which are not as audible to the human ear. Thus, noise impact analyses commonly use the dBA. Typical A-weighted levels measured in the environment and in industry are shown in Table 4.11-1.

Since excessive noise levels can adversely affect human activities (such as conversation, sleeping and human health) Federal, State, and local governmental agencies have set forth criteria or planning goals to minimize or avoid these effects. The noise guidelines are almost always expressed using one of several noise averaging methods such as  $L_{eq}$ , DNL, or CNEL.<sup>22</sup> Using one of these descriptors is a way for a location’s overall noise exposure to be measured, realizing of course that there are specific moments when noise levels are higher (e.g., when a jet is taking off from Norman Y. Mineta San José International Airport or a leafblower is operating) and specific moments when noise levels are lower (e.g., during lulls in traffic flows or in the middle of the night).

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<sup>22</sup>  $L_{eq}$  stands for the Noise Equivalent Level and is a measurement of the average energy level intensity of noise over a given period of time such as the noisiest hour. DNL stands for Day-Night Level and is a 24-hour average of noise levels, with a 10 dB penalty applied to noise occurring between 10:00 PM and 7:00 AM. CNEL stands for Community Noise Equivalent Level; it is similar to the DNL except that there is an additional five dB penalty applied to noise which occurs between 7:00 PM and 10:00 PM. Generally, where traffic noise predominates, the CNEL and DNL are typically within two dBA of the peak-hour  $L_{eq}$ .

Table 4.11-1 Typical Sound Levels Measured in the Environment		
Common Outdoor Noise Source	Noise Level (dBA)	Common Indoor Noise Source
	120 dBA	
Jet fly-over at 300 meters		Rock concert
	110 dBA	
Pile driver at 20 meters	100 dBA	
	90 dBA	Night club with live music
Large truck pass by at 15 meters		
	80 dBA	Noisy restaurant
Gas lawn mower at 30 meters		Garbage disposal at 1 meter
Commercial/Urban area daytime	70 dBA	Vacuum cleaner at 3 meters
Suburban expressway at 90 meters		Normal speech at 1 meter
Suburban daytime	60 dBA	
	50 dBA	Active office environment
Urban area nighttime		Quiet office environment
	40 dBA	
Suburban nighttime		
Quiet rural areas	30 dBA	Library
		Quiet bedroom at night
Wilderness area	20 dBA	
	10 dBA	Quiet recording studio
Threshold of human hearing	0 dBA	Threshold of human hearing

### Fundamentals of Groundborne Vibration

Railroad operations are potential sources of substantial ground vibration depending on distance, the type and the speed of trains, and the type of railroad track. People’s response to ground vibration has been correlated best with the velocity of the ground. The velocity of the ground is expressed on the decibel scale. Although not a universally accepted notation, the abbreviation “VdB” is used in this document for vibration decibels to reduce the potential for confusion with sound decibels.

Typical background vibration levels in residential areas are usually 50 VdB or lower, well below the threshold of perception for most humans. Perceptible vibration levels inside residences are attributed to the operation of heating and air conditioning systems, door slams and foot traffic. Construction activities, train operations, and street traffic are some of the most common external sources of vibration that can be perceptible inside residences. Table 4.11-2 illustrates some common sources of vibration and the association to human perception or the potential for structural damage.

One of the problems with developing suitable criteria for groundborne vibration is the limited research into human response to vibration and more importantly human annoyance inside buildings. The U.S. Department of Transportation, Federal Transit Administration (FTA) has developed rational vibration limits that can be used to evaluate human annoyance to groundborne vibration.

These criteria are primarily based on experience with passenger train operations, such as rapid transit and commuter rail systems. The main difference between passenger and freight operations is the time duration of individual events; a passenger train lasts few seconds whereas a long freight train may last several minutes, depending on speed and length. The FTA vibration limits are used in this assessment to evaluate the potential of vibration-induced annoyance on the site due to railroad trains.

<b>Human/Structural Response</b>	<b>Velocity Level, VdB (re 1μ inch/sec, RMS)</b>	<b>Typical Events (50 –foot setback)</b>
Threshold, minor cosmetic damage	100	Blasting, pile driving, vibratory compaction equipment Heavy tracked vehicles (Bulldozers, cranes, drill rigs)
Difficulty with tasks such as reading a video or computer screen	90	
Residential annoyance, infrequent events	80	Commuter rail, upper range Rapid transit, upper range
Residential annoyance, frequent events	70	Commuter rail, typical bus or truck over bump or on rough roads Rapid transit, typical
Approximate human threshold of perception to vibration	60	Buses, trucks and heavy street traffic
Lower limit for equipment ultra-sensitive to vibration	50	Background vibration in residential settings in the absence of activity

Note: The reference velocity for groundborne vibration is  $1 \times 10^{-6}$  inches per second (1μ inch/sec) RMS, which equals 0 VdB, and 1 in./sec. equals 120 VdB.

### Applicable Noise Standards and Policies

#### *City of San José General Plan*

The Noise Element of the City of San José General Plan contains noise guidelines for various land uses within the City, and identifies acceptable noise exposure levels for those uses in terms of the Day-Night Level (DNL) 24-hour descriptor. The DNL descriptor is used to define the noise conditions on a site over a 24-hour period, with a penalty for nighttime noise because of increased sensitivity to noise at night. The City’s acceptable noise level objectives for residential uses are 55 dBA DNL as the long-range exterior noise quality level, 60 dBA DNL as the short-range exterior noise quality level, and 45 dBA DNL as the interior noise quality level. Outdoor uses on sites where the DNL is above 60 dBA should be limited to acoustically protected areas. It should be noted, however, that the maximum exterior noise level necessary to avoid significant adverse health effects

is 76 dBA DNL. The City of San José interprets its General Plan policies as permitting up to 76 dBA DNL as a less than significant CEQA impact.<sup>23</sup>

*City of Santa Clara General Plan and Noise Ordinance*

The Noise Section of the City of Santa Clara’s General Plan identifies guidelines for noise and land use compatibility, as shown in Table 4.11-3.

<b>Table 4.11-3 Land Use Compatibility for Community Noise Environment</b>									
<b>Noise and Land Use Compatibility (Ldn &amp; CNEL)</b>									
<b>Land Use</b>	<b>50</b>	<b>55</b>	<b>60</b>	<b>65</b>	<b>70</b>	<b>75</b>	<b>80</b>	<b>85</b>	
Residential	Compatible		Require design and insulation to reduce noise levels			Incompatible. Avoid land use except when entirely indoors and an interior noise level of 45 Ldn can be maintained.			
Educational	Compatible		Require design and insulation to reduce noise levels			Incompatible. Avoid land use except when entirely indoors and an interior noise level of 45 Ldn can be maintained.			
Recreational	Compatible		Require design and insulation to reduce noise levels			Incompatible. Avoid land use except when entirely indoors and an interior noise level of 45 Ldn can be maintained.			
Commercial	Compatible		Require design and insulation to reduce noise levels			Incompatible. Avoid land use except when entirely indoors and an interior noise level of 45 Ldn can be maintained.			
Industrial	Compatible		Require design and insulation to reduce noise levels			Incompatible. Avoid land use except when entirely indoors and an interior noise level of 45 Ldn can be maintained.			
Open Space	Compatible		Require design and insulation to reduce noise levels			Incompatible. Avoid land use except when entirely indoors and an interior noise level of 45 Ldn can be maintained.			
	Compatible		Require design and insulation to reduce noise levels			Incompatible. Avoid land use except when entirely indoors and an interior noise level of 45 Ldn can be maintained.			
	Compatible		Require design and insulation to reduce noise levels			Incompatible. Avoid land use except when entirely indoors and an interior noise level of 45 Ldn can be maintained.			
	Compatible		Require design and insulation to reduce noise levels			Incompatible. Avoid land use except when entirely indoors and an interior noise level of 45 Ldn can be maintained.			

*CEQA Guidelines*

CEQA does not define what project-generated noise level increases are significant. Typically, project-generated noise level increases of three dBA DNL or greater are considered significant where exterior noise levels would exceed the normally acceptable noise level standard (60 dBA DNL). Where noise levels would remain at or below the normally acceptable noise level standard with the project, noise level increases of five dBA DNL or greater would be considered significant.

*Section 1207 of the 2007 California Building Code*

Multi-family housing in the State of California is subject to the environmental noise limits set forth in the 2007 California Building Code (Chapter 12, Appendix Section 1207.11.2). The noise limit is a maximum interior noise level of 45 dBA DNL. Where exterior noise levels exceed 60 dBA DNL, a report must be submitted with the building plans describing the noise control measures that have been incorporated into the design of the project to meet the noise limit.

*Santa Clara County Airport Land Use Commission Land Use Plan*

The Santa Clara County Airport Land Use Commission (ALUC) has adopted a Land Use Compatibility Chart for projects within the vicinity of San Jose International Airport. The chart indicates that residential land uses are compatible in noise environments resulting from aircraft of 65 dBA CNEL or less.

<sup>23</sup> Danielson, Akoni. City of San José, Department of Planning, Building, and Code Enforcement, Principal Planner. Personal communication. July 10, 2006.

### Applicable Vibration Standards

The City of San José has not established vibration limits that can be used to evaluate the compatibility of sensitive land uses with respect to groundborne vibration. Although there are no local standards, the U.S. Department of Transportation’s FTA has developed vibration impact assessment criteria for evaluating vibration impacts associated with transit projects. FTA has proposed vibration impact criteria based on maximum overall levels for a single event. The impact criteria for groundborne vibration are shown in Table 4.11-4. Note that there are criteria for frequent events (more than 70 events of the same source per day), occasional events (30 to 70 vibration events of the same source per day), and infrequent events (less than 30 vibration events of the same source per day).

<b>Table 4.11-4 Groundborne Vibration Impact Criteria</b>			
<b>Land Use Category</b>	<b>Groundborne Vibration Impact Limits (VdB re 1<math>\mu</math> inch/sec, RMS)</b>		
	<b>Frequent Events<sup>1</sup></b>	<b>Occasional Events<sup>2</sup></b>	<b>Infrequent Events<sup>3</sup></b>
Category 1 Buildings where low ambient is essential for interior operations	65 VdB <sup>4</sup>	65 VdB <sup>4</sup>	65 VdB <sup>4</sup>
Category 2 Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB
Category 3 Institutional land uses with primarily daytime use	75 VdB	78 VdB	83 VdB
Notes: <sup>1</sup> “Frequent Events” are defined as more than 70 vibration events per day. Most rapid transit projects fall into this category. <sup>2</sup> “Occasional Events” are described as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have these many operations. <sup>3</sup> “Infrequent Events” is defined as fewer than 70 vibration events per day. This category includes most commuter rail systems. <sup>4</sup> This limit is based on levels that acceptable for most moderately sensitive equipment such as optical microscopes. Vibration sensitive manufacturing or research should always require detailed evaluation to define the acceptable vibration limits.			
Source: U.S. Department of Transportation, Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006, FTA-VA-90-1003-06.			

#### 4.11.1.2 Existing Noise Conditions

##### Existing Noise Levels

To quantify the existing noise environment on the project site, a noise monitoring survey was completed from August 22, 2005 to August 24, 2005. Four long-term noise measurements were conducted at representative locations to complete the noise monitoring survey. Noise measurement locations are shown on Figure 8. The site was revisited in October of 2007 to evaluate any changes in noise sources or noise levels that may have occurred in the two years since the detailed measurement survey was completed. Noise measurements confirmed that the data gathered during the August 2005 survey remain representative of the ambient noise levels on the project site.

The first long-term noise measurement (LT-1) was made approximately 54 feet from the centerline of Campbell Avenue. This measurement location documented noise levels generated by vehicular traffic along Campbell Avenue and El Camino Real. The DNL noise level (day-night average) over the course of the measurement period ranged from 65 to 66 dBA. The data collected at location LT-1 is summarized in Appendix F.

A second long-term noise measurement was taken at the northeast corner of the project site near the adjacent railroad lines and Alliance Roofing. The noise monitor at location LT-2 was located approximately 140 feet from the center of the nearest through railroad track (center of the third track from the site). The DNL at location LT-2 was 62 dBA. Noise levels resulted primarily from train passages, idling of train engines, and local activities at Alliance Roofing. The sound-level meter began recording data at about 12:00 PM on August 22, 2005. When the sound level meter began recording data, an ACE train was idling near the site. The data collected at location LT-2 are summarized in Appendix F.

The third long-term noise measurement was taken at the east property line of the project site adjacent to Alliance Roofing. The noise monitor at location LT-3 was located approximately 300 feet from the center of the nearest through railroad track, and approximately 15 feet from the common property line with the roofing company. Noise levels measured at this site varied depending on the amount of activity occurring near the sound level meter. On the afternoon of August 23, 2005, noise levels from activities at Alliance Roofing were most prevalent given the intermittent nature of the noise levels recorded. On the morning and early afternoon of August 24, 2005, the data indicates that the ACE Train idled near the site, generating fairly steady noise levels of about 60 dBA. The DNL noise level at location LT-3 was 65 dBA. The data collected at location LT-3 are summarized in Appendix F.

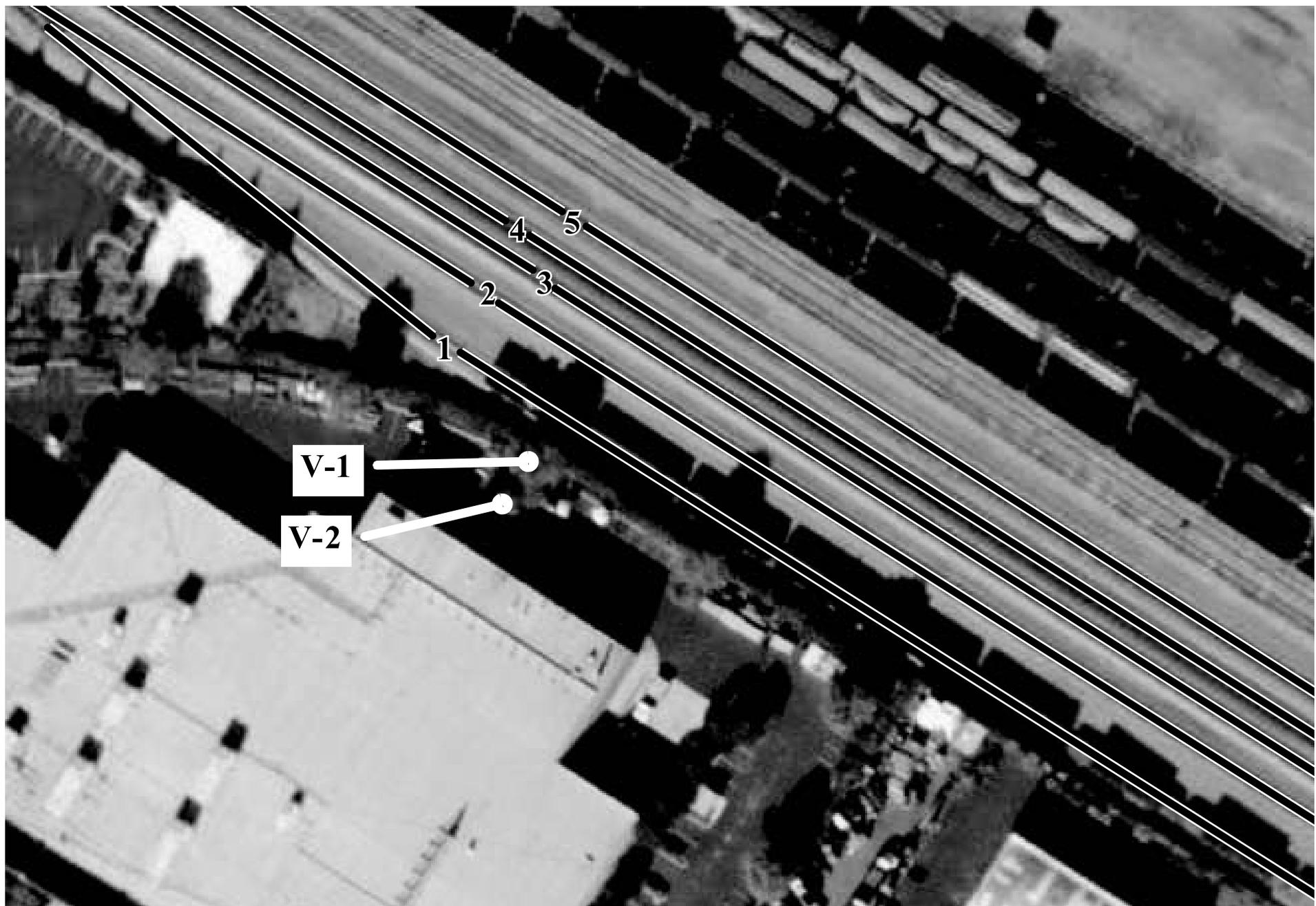
A fourth long-term noise measurement was conducted at the northernmost property line of the project site, approximately 80 feet from the center of the near through track. Noise levels measured at this site were primarily the result of train traffic along the railroad lines and aircraft. A similar trend in the noise data, as discussed previously in the paragraph above, indicates that the ACE Train idled near the site on the morning and early afternoon of August 24, 2005. The DNL noise level was 70 dBA. The data collected at location LT-4 are summarized in Appendix F.

Several visits were made to the project site to observe train activity on the tracks adjacent to the site. The tracks are identified in Figure 9. Observations made during visits to the project site and neighboring sites indicate that the nearest railroad track (Track 1) is used primarily for the storage of rail cars. The second track (Track 2) provides a location for the ACE train to idle between commute hours. The third, fourth, and fifth tracks (Tracks 3, 4, and 5) are the primary through-travel rail lines used by freight and passenger trains. Beyond the through rail lines, there are several additional tracks used for storage of rail cars.



NOISE MEASUREMENT LOCATIONS

FIGURE 8



VIBRATION MEASUREMENTS AND TRACK LOCATIONS

FIGURE 9

### Vibration Measurements

Vibration measurements were taken August 23, 2005. There have been no known changes to the railroad tracks or trains utilizing the tracks since the 2005 vibration measurements that would result in measurably different vibration levels, therefore, this data is considered to be representative of current conditions (2008). The instrumentation used to conduct the measurements is capable of measuring very low vibration levels accurately. Vibration levels measured on the site are representative of vibration levels at ground level, i.e. vibration levels that would enter the building foundation.

Vibration measurements were taken at two setbacks from the property line along the northern end of the property (refer to Figure 9). Several tracks exist adjacent to the site and were found to be active (refer to Figure 9). The nearest two tracks are predominantly used for storage and slow speed passbys. The three central tracks appear to be used by freight and passenger trains. The furthest tracks are also used for storage. Through trains were observed to travel at speeds ranging from approximately 20 mph to 45 mph adjacent to the project site.

Location V-1 was approximately 10 feet from the property line, and Location V-2 was 30 feet from the property line. The two different setbacks were used to develop a drop-off rate for ground vibration with distance.

Nine train passbys were measured between 11:00 AM and 2:00 PM on August 23, 2005. Caltrain was measured in both the northbound and southbound direction on six occasions. The measurements also included two northbound Amtrak trains and one southbound freight train. Southbound Caltrain passed the site along the third track (nearest through track) at approximately 24 to 34 mph. Northbound Caltrain passed the site at speeds of approximately 32 to 45 mph on the fourth railroad track (second through track) from the site. Amtrak and the freight train passed the site along the third through track from the site (Track 5) at speeds of approximately 20 to 32 mph. Vibration levels measured at each measurement position during train passby events are summarized in Table 4.11-5.

Activity	Vibration Level (VdB re 1µinch/sec, RMS)		Track	Comments
	Location V-1	Location V-2		
Background	~ 45 VdB	~ 45 VdB	--	Ambient vibration levels
NB Caltrain (11:46 AM)	74 VdB	71 VdB	4	
NB Caltrain (12:16 PM)	77 VdB	74 VdB	4	45 mph, Engine + 4 Cars
SB Caltrain (12:32 PM)	73 VdB	68 VdB	3	34 mph, Engine + 5 Cars
NB Amtrak (12:37 PM)	70 VdB	66 VdB	5	32 mph, Engine + 7 Cars
NB Caltrain (12:45 PM)	78 VdB	75 VdB	4	Engine + 5 Cars
SB Caltrain (12:58 PM)	72 VdB	67 VdB	3	24 mph
NB Amtrak (1:15 PM)	78 VdB	75 VdB	5	
SB Caltrain (1:33 PM)	68 VdB	64 VdB	3	
SB Freight (1:37 PM)	70 VdB	65 VdB	5	20 mph
Notes: Position V-1 – 10 feet from the property fence Position V-2 - 30 feet from the property fence				

**4.11.2 Environmental Checklist and Discussion**

NOISE AND VIBRATION						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
Would the project result in:						
1) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18
2) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18
3) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18
4) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2,18
5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18
6) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

**4.11.2.1 Noise Impacts to the Project**

The noise environment at the project site exceeds the City of San José’s and Santa Clara’s short-term noise level goal for exterior noise (60 dBA DNL and 55 dBA DNL) as a result of transportation noise sources in the site vicinity (i.e., railroad, Campbell Avenue, and the San José International Airport). In addition, BART has planned an extension of the regional transit network adjacent to the site with the potential to increase noise and vibration levels on the project site. Noise generated with the operation of adjacent light industrial uses would also continue to contribute to the future noise environment. Exterior noise levels throughout the project site would exceed the “satisfactory” compatibility standard for residential land uses established by the City of San José and Santa Clara.

**Exterior Noise Levels**

The existing noise environment along the northernmost property line of the site results primarily from train activity and aircraft. Future noise levels along the north property line of the project site are anticipated to increase assuming a moderate increase in train traffic and with the addition of BART. Based on the Silicon Valley Rapid Transit Corridor EIS/EIR project description map, the BART extension to Santa Clara would be located north of the existing through rail lines (north of

Track 5) and the alignment would be at-grade. A BART maintenance facility would be located at the end of the BART alignment (refer to Figure 10).

Existing noise levels at the north property line of the project site are approximately 70 dBA DNL. Maximum noise levels resulting from railroad train engines are approximately 85 dBA during passby events. Trains do not normally sound their warning whistles when adjacent to the site. BART would be expected to generate 62 dBA DNL at a distance of 160 feet. This noise level estimate is based on noise measurements conducted adjacent to BART in Walnut Creek in February 2004 and assumes a similar level of operation. Noise generated by the BART maintenance facility would not be expected to add substantially to the noise environment. With the addition of BART and a moderate increase in railroad activity (up to 200 trains per day)<sup>24</sup>, future noise levels at the property line would be approximately 72 dBA DNL, which is inconsistent with the noise policies of each City's General Plan.

Receivers adjacent to Campbell Avenue would be exposed to noise generated primarily by vehicular traffic and occasional events at the Santa Clara University Baseball Stadium. Future noise levels at a distance of 50 feet from the center of the Campbell Avenue (nearest residential outdoor use areas) could be as high as 67 dBA DNL assuming a doubling of vehicular traffic along Campbell Avenue. A noise barrier would be required to maintain exterior noise levels generated by Campbell Avenue at 60 dBA DNL or less.

The Santa Clara University Baseball Stadium is located at the southeast corner of Campbell Avenue and El Camino Real. The baseball stadium is used for National Collegiate Athletic Association (NCAA) baseball games and practice. Noise sources associated with a college baseball game include the public address (PA) system, cheering, and individual shouts from coaches and players. The stadium holds a maximum of 1,500 spectators. Noise generation is concentrated around the home plate area where the coaches, players, spectators, and PA speakers are located.

The baseball field is oriented away from the project site. Given the intermittent use of the field, it is not anticipated that noise generated during baseball games would substantially increase day-night average noise levels at the proposed residential development along Campbell Avenue.

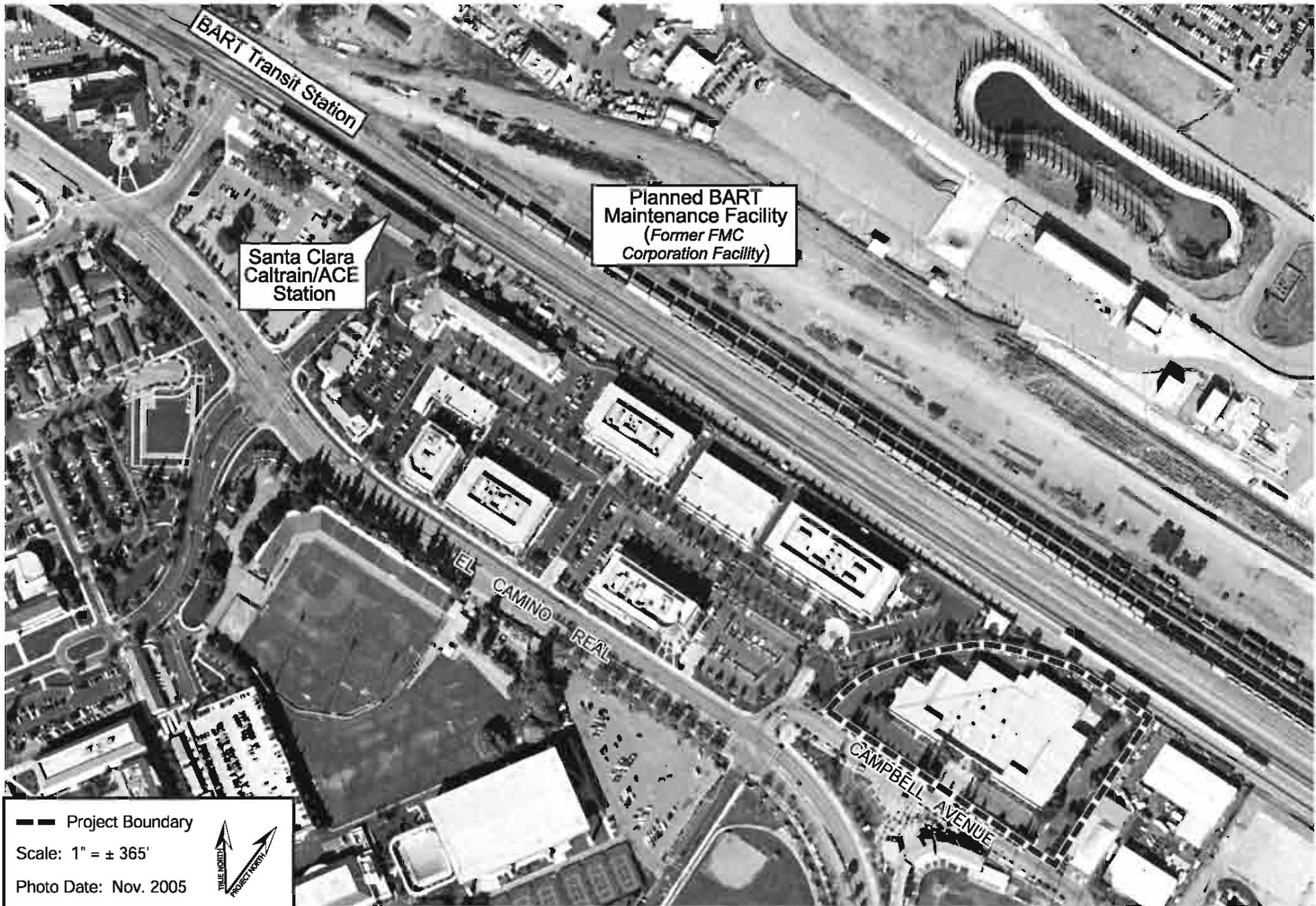
Community Noise Equivalent Levels (CNEL) noise levels from the airport would be expected to exceed 60 dBA CNEL on site and be less than 65 dBA CNEL, but the City of San José recognizes that in the environs of the airport, exterior noise levels may exceed the satisfactory noise level goals. The noise environment resulting from aircraft would be considered acceptable for residential development according to the Santa Clara County ALUC.

Receivers adjacent to Alliance Roofing would be exposed to intermittent noise from operation of the industrial use. Day-night average noise levels along the easternmost property line of the project site could range from 62 dBA DNL to 68 dBA DNL. Noise generated by the adjacent industrial use would be audible at times and could be annoying. To reduce noise levels to 60 DNL or less, a noise barrier along the property line with Alliance Roofing could be constructed but is not proposed by the project.

There has recently been discussion of a potential professional soccer venue on the former FMC property across the railroad tracks from the site. The center of the stadium would be located approximately 1,650 feet from the project site. Noise measurements were taken at the home field of

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<sup>24</sup> Letter from Stephen Chao, Caltrain, to Stephen Haase, City of San José, April 11, 2005.



- - - Project Boundary  
 Scale: 1" = ± 365'  
 Photo Date: Nov. 2005

PLANNED TRANSIT IMPROVEMENTS

FIGURE 10

Major League Soccer’s Los Angeles Galaxy in Carson, California. The noise generated during a game at a similar venue on the FMC site would be approximately 69 dBA  $L_{\max}$ <sup>25</sup> at the project site and hourly average noise levels would be 55 dBA  $L_{\text{eq}}$  or less at the project site. The day-night average noise level resulting from the operation of the soccer stadium between 5:00 PM and 11:00 PM (time period when these events would most likely occur) would be 53 dBA DNL at the project site. At the northern property line maximum noise levels would typically be one to 11 dBA below ambient maximum noise levels resulting from railroad train passby events. Hourly average noise levels generated by a soccer game would be within the range of existing hourly average noise levels. Day-night average noise levels resulting from a soccer game would be approximately nine dBA below ambient daily average noise levels. Noise generated from a future soccer stadium on the FMC site, therefore, would be lower than the noise generated by the trains on rail lines adjacent to the site and would not measurably increase the DNL at the project site.

The City of San José recommends that general noise levels in the outdoor use areas of new residential development be maintained at or below 60 dBA DNL. The City of San José recognizes that noise levels in the vicinity of the airport and adjacent to major thoroughfares are difficult to reduce to a DNL of 60 dBA and therefore accepts noise levels in the 60 to 65 dBA DNL range in these areas. The City of Santa Clara recommends that noise levels in outdoor use areas of new residential development be maintained at 55 dBA DNL. The City of Santa Clara’s General Plan identifies 55 dBA DNL for residential uses as a guideline but recognizes many areas of the city currently exceed this standard, and therefore considers this an objective towards which the City will continue to work. The 65 dBA DNL is considered consistent with residential land uses by the U.S. Department of Housing and Urban Development (HUD), the Federal Aviation Administration (FAA), and the State of California whose standards take into account the impacts of noise on human health.<sup>26</sup>

The proposed site plan shows that the common outdoor use area associated with the project would be in a courtyard on the podium, shielded from offsite noise sources (including aircraft landing and taking off at San José International Airport) by the residential buildings (refer to Figure 5). The noise level in the common outdoor space would be between 60 and 65 dBA DNL. Exterior noise levels at private balconies would be approximately 70 dBA DNL adjacent to the railroad, 62 to 69 dBA DNL adjacent to Alliance Roofing, and 67 dBA DNL adjacent to Campbell Avenue. It is not possible to reduce exterior noise levels in these areas into compliance with the San José General Plan standards without full enclosures. Solid balcony rails could be considered to provide some minor acoustical shielding for persons sitting on their balconies. Given the existing and future noise levels on the project site, the residential noise level guidelines contained in the City of Santa Clara’s General Plan would not be met. These guidelines are considered an objective, which the City recognizes may not be achieved in areas planned for residential uses with elevated noise levels. The proposed balconies on the site are not required open space and acoustically protected common open space areas are present on the site where noise levels would be reduced consistent with HUD standards for residential uses.

The proposed exterior common open spaces for the project would be acoustically protected and would not exceed 65 dBA DNL which conforms to the City of San José’s and HUD noise standards. Exterior noise levels at private balconies could be reduced to the maximum extent practicable with the incorporation of solid balcony railings.

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<sup>25</sup>  $L_{\max}$  refers to the maximum A-weighted noise level during a measurement period.

<sup>26</sup> References: [www.hud.gov/local/shared/working/r10/environment/noise.doc](http://www.hud.gov/local/shared/working/r10/environment/noise.doc); [www.opr.ca.gov](http://www.opr.ca.gov) and San José International Airport Master Plan Update EIR (1997).

**Avoidance Measures:** The project includes the following avoidance measure to avoid impacts to exterior open spaces on the site:

**AM NOI-1:** Proposed common open space areas on the project site must be acoustically protected to maintain noise levels in these spaces below 65 dBA DNL.

### **Interior Noise Levels**

Exterior noise levels at the facades of residential units adjacent to the railroad and BART would be expected to be approximately 70 dBA DNL. Exterior noise levels at receivers adjacent to Campbell Avenue could reach 66 dBA DNL. Exterior noise levels at proposed receivers adjacent to Alliance Roofing would be subject to exterior noise level ranging from 62 to 69 dBA DNL. Exterior noise levels at the facades of units within the central portion of the site would be expected to range from 63 to 64 dBA DNL as a result of aircraft.

Where exterior day-night average noise levels are 65 dBA DNL or less, interior noise level can typically be maintained below City and State standards (45 dBA DNL) with the incorporation of forced air mechanical ventilation systems in residential units. Typically, standard construction with a forced air unit (allowing the occupant to control noise by maintaining the windows shut) provides approximately 20 to 25 dBA of noise reduction in interior spaces.

Where noise levels exceed 65 dBA DNL, forced-air mechanical ventilation systems and sound-rated construction are normally required. The exact specifications of window and wall systems cannot be accurately predicted at this time, but once building elevations and floor plans are finalized, the specifications can be made. To control interior maximum noise levels to minimize the potential for activity interference and sleep disturbance, noise insulation features such as stucco-sided walls and sound-rated windows and doors would be required for residences located near the adjacent railroad. Preliminary calculations indicate that proposed residential units would require windows and doors with minimum sound ratings ranging from 28 STC to 34 STC depending on the project noise exposure. Noise insulation features to be included in the project's design will need to be developed once detailed plans are available. The noise control treatments will be designed to reduce noise levels from the railroad, airport, Campbell Avenue, and adjacent industrial uses to an interior 45 dBA DNL or less.

**Impact NV-1:** Future residential uses that would be developed at the project site would be exposed to exterior noise levels greater than 60 dBA DNL which exceeds the noise and land use compatibility standards presented in the City of San José's and Santa Clara's General Plan. Interior noise levels would be expected to exceed 45 dBA DNL without the incorporation of noise insulation features in the project design. **(Significant Impact)**

**Mitigation Measures:** The project shall incorporate the following measures to reduce the interior noise impacts of the project to a less than significant level:

**MM NV-1.1:** Project-specific acoustical analyses are required by the City of San José to insure that interior noise levels will be reduced to 45 dBA DNL or lower. It is also recommended that maximum interior noise levels be limited to 50 dBA  $L_{max}$  within bedrooms and 55 dBA  $L_{max}$  within other habitable rooms to avoid sleep disturbance and activity interference indoors. Building sound

insulation requirements would need to include the provision of forced-air mechanical ventilation for all new units, so that windows could be kept closed at the occupant's discretion to control noise. Special building construction techniques (e.g., sound-rated windows and building facade treatments) may be required for new residential uses adjacent to the railroad. These treatments include, but are not limited to, sound rated windows and doors, sound rated wall constructions, acoustical caulking, etc. The specific determination of what treatments are necessary will be conducted on a unit-by-unit basis. Results of the analysis, including the description of the necessary noise control treatments, will be submitted to the City along with the building plans and approved prior to issuance of a building permit. Feasible construction techniques such as these would adequately reduce average interior noise levels to 45 dBA DNL or lower and maximum interior noise levels to 50 dBA  $L_{\max}$  in bedrooms and 55 dBA  $L_{\max}$  in other habitable rooms.

### **Groundborne Vibration**

Approximately 98 Caltrain passenger trains pass the site during the course of a day. This number was calculated based on the published Caltrain schedule dated March 3, 2008. Additionally, Amtrak, ACE, and an unknown number of UPRR freight trains pass the site each day. It was not possible to confirm the total number of trains that pass the site per day because UPRR will not release this information for security reasons. The Public Utilities Commission states that the railroad corridor adjacent to the site carries about 130 trains per day. Since the total number of trains passing the site exceeds 70 events per day, the 72 VdB limit is used in the evaluation of the project with respect to vibration compatibility.

Vibration levels measured on-site were typical for the primary through-tracks (3, 4, and 5) adjacent to the site. Based on the results of the vibration measurements, the calculated 72 VdB contour distance was 60 feet from the north property line and 135 feet from the center of the nearest track to the site carrying through-traffic. The "Baby Bullet" train passes at a higher rate of speed than a typical Caltrain passenger train along a reconditioned track. Vibration levels resulting from "Baby Bullet" train passbys would not be substantially different from existing operations given the lighter trains and the refurbished track. If passenger or freight railroad trains were to pass the site on the first and second lines at similar speeds, a similar setback from the near railroad track would be warranted to meet the 72 VdB vibration limit.

The future Santa Clara BART station would be located at the terminus of Brokaw Road and the planned BART tracks would be located north of the existing UPRR rail lines. Vibration levels generated by future BART trains would be below 72 VdB given the lighter weight of the BART trains and the increased distance from the project site.

No residential units are proposed within 60 feet of the north property line; therefore, no units would be exposed to vibration levels greater than the 72 VdB vibration limit for "frequent events".

### **Airport Noise**

A review of the 65 CNEL noise contour map established by the Santa Clara County ALUC indicates that the project site is located outside of the future 65 CNEL noise contour. Where noise levels are less than 65 CNEL, residential land uses are considered compatible with the exterior noise

environment. Interior noise levels resulting from aircraft would be less than 45 dBA DNL with the incorporation of the mitigation measure identified above (MM NV-1.1).

#### 4.11.2.2 *Noise Impacts from the Project*

##### **Project Generated Traffic Noise**

Noise level increases on the roadways serving the site were calculated based on the anticipated traffic volume increases for the project. The calculations show that the traffic added by the proposed project will increase the noise level on the local street system by less than one dBA DNL which is undetectable to the human ear. Overall growth in the area will result in a one dBA DNL increase in noise levels along El Camino Real, which is also an undetectable increase.

##### **Construction Noise**

Construction on the site would generate noise, and would temporarily increase noise levels at adjacent land uses. Commercial and light industrial uses border the project site. Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise sensitive receptors. Where noise from construction activities exceeds 60 dBA  $L_{eq}$  and exceeds the ambient noise environment by at least five dBA  $L_{eq}$  for more than one year at noise-sensitive uses in the project vicinity, the impact would be considered significant.

Construction activities generate considerable amounts of noise, especially during the demolition phase and the construction of project infrastructure when heavy equipment is used. Typical hourly average construction generated noise levels are about 81 dBA  $L_{eq}$  to 89 dBA  $L_{eq}$  measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.). In addition to this typical equipment, this project proposes to use a portable crusher to crush the existing concrete on the site. These portable crushers generate noise levels of up to 85 dBA  $L_{eq}$  at a distance of 50 feet. Construction generated noise levels drop off at a rate of about six dBA per doubling of distance between the source and receptor. At a distance of 300 feet, construction noise levels would be expected to be about 16 decibels lower as a result of increased distance from the noise source. Shielding by buildings would provide an additional five to 10 decibels of attenuation at distant receptors.

Typically, small residential, commercial, or office construction projects do not generate significant noise impacts when standard construction noise control measures are enforced at the project site and when the duration of the noise generating construction period is limited to one construction season (typically one year) or less. Construction noises associated with projects of this type are disturbances that are necessary for the construction or repair of buildings and structures in urban areas. Reasonable regulation of the hours of construction, as well as regulation of the arrival and operation of heavy equipment and the delivery of construction materials, are necessary to protect the health and safety of persons, promote the general welfare of the community, and maintain the quality of life.

Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise sensitive land uses, or when construction durations last over extended periods of time. Limiting the hours when construction can occur to daytime hours is often a simple method to reduce the potential for noise impacts. In areas immediately adjacent to construction,

controls such as constructing temporary noise barriers and utilizing “quiet” construction equipment can also reduce the potential for noise impacts.

Project construction would be expected to generate worst-case hourly average noise levels of up to 69 dBA  $L_{eq}$  at the nearest noise-sensitive receivers if the portable rock crusher were located at the southernmost portion of the project site. The noise generated by the other construction activity would be five to 10 dBA lower. As construction proceeds away from the southernmost portion of the project site, construction noise would be further reduced. Noise generated by the portable rock crusher could exceed a  $L_{eq}$  of 60 dBA at the nearest sensitive receptors during crushing activities on the site which would occur for approximately one month. The noise generated by all other construction activity would be at a level of 60 dBA  $L_{eq}$  or less.

**Standard Measures:** The project shall implement the following standard measures:

**SM NV-1:** Construction will be limited to the hours of 7:00 AM to 7:00 PM Monday through Friday for any on-site or off-site work within 500 feet of any residential unit. Construction outside of these hours may be approved through a development permit based on a site-specific construction noise mitigation plan and a finding by the Director of Planning, Building and Code Enforcement that the construction noise mitigation plan is adequate to prevent noise disturbance of affected residential uses.

**SM NV-2:** The contractor shall use “new technology” power construction equipment with state-of-the-art noise shielding and muffling devices. All internal combustion engines used on the project site shall be equipped with adequate mufflers and shall be in good mechanical condition to minimize noise created by faulty or poor maintained engines or other components.

**SM NV-3:** Locate stationary noise generating equipment as far as possible from sensitive receptors. Staging areas shall be located a minimum of 200 feet from noise sensitive receptors, such as residential uses.

**Impact NV-2:** Noise generated by the portable rock crusher could exceed a  $L_{eq}$  of 60 dBA at the nearest sensitive receptors. **(Significant Impact)**

**Mitigation Measures:** The project shall implement the following mitigation measure to reduce construction noise impacts to nearby sensitive receptors:

**MM NV-2.1:** At the final design phase, a qualified acoustical consultant shall review the construction plans to ensure that the placement of a portable rock crusher on the site will reduce construction noise levels to 60 dBA  $L_{eq}$  at the nearest sensitive receivers to the east. In the event rock crusher noise levels would not be reduced to 60 dBA  $L_{eq}$  at noise sensitive receivers based on the location of intervening structures, the acoustical consultant shall identify the appropriate height and location of recycled material stockpiles to be maintained during crushing activities in order to attenuate noise to the maximum amount feasible. The required construction noise reduction measures shall be printed on all construction documents, contracts, and project plans; and be reviewed by the City’s Environmental Principal Planner prior to issuance of building permits.

**4.11.3      Conclusion**

**Impact NV-1:**            The proposed project with the implementation of the identified mitigation measure would reduce the interior noise levels to a less than significant level. **(Less Than Significant Impact with Mitigation)**

**Impact NV-2:**            The proposed project, with the implementation of standard measures (SM NV-1 to SM NV-3) and the identified mitigation measure, would not result in significant construction noise impacts. **(Less Than Significant Impact with Mitigation)**

**Additional Measure That Could be Required  
to Further Reduce Impacts**

The following measure, if required as conditions of project approval, could further reduce exterior noise at the project site:

- Solid balcony railings could be incorporated into the project to reduce exterior noise levels at private balconies to the maximum extent practicable. Solid balcony railings would provide some minor acoustical shielding for persons while sitting on their balconies.

**4.12 POPULATION AND HOUSING**

**4.12.1 Setting**

Historically, San José has had a shortage of jobs compared to the number of employed residents living in the City, commonly referred to as a jobs/housing imbalance. A jobs/housing imbalance, especially when there is a relative deficit of jobs, can be problematic because it results in longer commutes as City residents travel to other locales for employment. This same imbalance can result in financial hardships for a city due to the costs associated with providing services to residential land uses in relation to revenue generated.

In recent years, consistent with the major strategies and objectives of the adopted General Plan, the City has been attempting to correct this imbalance. The City has recently adopted some General Plan policies that allow for increased job and housing growth that would, if implemented, improve the overall jobs/housing imbalance. Buildout of the current General Plan is estimated to result in 1.14 jobs per employed resident. However, near-term trends of industrial-to-residential conversions continue to undermine the existing jobs/housing balance.

According to the *Association of Bay Area Governments (ABAG) Projections 2007: Forecasts for the San Francisco Bay Area to the Year 2030*, within the City of San José’s Sphere of Influence the population in 2030 is projected to be 1,336,400 and the total number of households was projected to be 422,720, with an average of 3.20 persons per household.

**4.12.2 Environmental Checklist and Discussion**

POPULATION AND HOUSING						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
Would the project:						
1) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2
2) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
3) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2

The proposed project would result in approximately 828 new residents on the project site. The site is currently vacant and designated for residential use in the General Plan. The project would not result in a loss of jobs in the City that was not previously accounted for and therefore would not have any effect on the jobs/housing balance.

The proposed project would not induce substantial population growth in the City. The project would not displace substantial numbers of existing housing or people.

**4.12.3            Conclusion**

The proposed project would not displace people or housing and would not result in significant adverse impacts to the housing supply or population. **(Less Than Significant Impact)**

## **4.13 PUBLIC SERVICES**

### **4.13.1 Setting**

#### **4.13.1.1 *Fire Service***

Fire protection services for the project site are provided by the San José Fire Department (SJFD). The SJFD currently serves a population of 920,000 and an area of 205 square miles. The SJFD responds to all fires, hazardous materials spills, and medical emergencies (including injury accidents) in the project area.

The closest fire station to the site is Fire Station No. 7 located at 800 Emory Street, approximately 1.61 miles southeast of the site. The second closest fire station to the site is Fire Station No. 1, located at 225 North Market Street, approximately 3.31 miles east of the site. In the 2004–2005 fiscal year, Fire Station No. 7 responded to a total of 1,054 calls including 815 medical, 60 fire, and 179 other emergencies.<sup>27</sup>

#### **4.13.1.2 *Police Service***

Police protection services are provided to the project site by the City of San José Police Department (SJPD). Officers patrolling the project area are dispatched from police headquarters, located at 201 West Mission Street.

The SJPD consists of 83 patrol beats which are assigned to one of 16 patrol districts. The beats are identified with a number and the Districts are identified with a letter. From August 2006 to July 2007, calls for service in the project area were most frequently related to disturbances, alarms, and vehicle stops.<sup>28</sup>

#### **4.13.1.3 *Schools***

The project site is located within the San José Unified School District. The closest schools to the project site are Trace Elementary School (approximately 2.1 miles south of the site), Hoover Middle School (approximately two miles south of the site), and Lincoln High School (approximately 2.35 miles south of the site).

#### **4.13.1.4 *Parks***

The project site is located in Council District 6, which has 18 neighborhood parks. The nearest city park to the project site is Columbus Park, which is approximately 1.21 miles southeast of the site on Asbury Street and Walnut Street. The regional park closest to the project site is the Municipal Rose Garden, located approximately 1.17 miles south of the site. Council District 6 has a total of 282.4 acres of neighborhood/community serving parkland and requires an additional 13.84 acres to reach the City's goal of 3.5 acres per 1,000 residents. By 2020, the District will need an additional 70.54 acres to serve the increased population.<sup>29</sup>

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<sup>27</sup> City of San José Fire Department. SJFD Response Statistics Index. 28 August 2007.

<http://www.sjfd.org/Stats/0405Station.htm>

<sup>28</sup> City of San José Police Department. BBB 5 Reports, Call Type Profile. August 1, 2007. 28 August 2007.

[http://public.coronasolutions.com/?page=agency\\_home&agency=25](http://public.coronasolutions.com/?page=agency_home&agency=25)

<sup>29</sup> City of San José. City of San José Greenprint. 5 September 2000.

<http://www.sjpark.org/greenprint/GP2000/Ch.%206%20Neighborhood%20District%20Strategies.PDF>

The nearest City of Santa Clara park to the project site is Marsalli Park located on the southeast corner of El Camino Real and Lafayette Street approximately 3,200 feet west of the project site.

**4.13.1.5 Libraries**

The project site is served by the San José Public Library System, which consists of one main library and 17 branch libraries. The closest library to the site is the Rosegarden Branch Library, located at 1580 Naglee Avenue, approximately 2.1 miles south of the site. The library was recently expanded to approximately 19,000 square feet in size and reopened in 2006.

**4.13.2 Environmental Checklist and Discussion**

PUBLIC SERVICES						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
Would the project:						
1) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:						
Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2
Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2
Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2

**4.13.2.1 Fire Service**

Construction of up to 259 residential units may incrementally increase the number of calls for fire service to the project site. The increase in calls would be the result of an increase in the permanent population on the site. The project is located on an infill site within the urbanized area of San José, which is currently served by the SJFD. The project will be constructed in conformance with current fire codes, including adequate emergency vehicle access and features that would reduce potential fire hazards. The increase in calls, therefore, is not expected to generate the need for additional fire department staff or facilities.

**4.13.2.2 Police Service**

Construction of up to 259 residential units may incrementally increase the number of calls for police service to the project site. The increase in calls would be the result of an increase in the permanent population on the site. The project is located on an infill site within the urbanized area of San José, which is currently served by the SJPD. The final project design will be reviewed by the SJPD to ensure that it incorporates appropriate safety features to minimize criminal activity.

#### 4.13.2.3 *Schools*

The project site is located within the San José Unified School District. The proposed project would result in approximately 30 new elementary school students, 15 middle school students, and 17 high school students for the San José Unified School District.<sup>30</sup>

The number of students generated by the proposed project is not anticipated to require construction of a new school. The project may result in the need to realign elementary school attendance boundaries to accommodate the additional elementary students resulting from the proposed development.<sup>31</sup> The project will be required to pay the school impact fees for residential development as described in California Government Code Section 65995 to offset the increased demands on school facilities caused by the project.

**Standard Measure:** The project shall implement the following standard measure:

**SM PS-1:** In accordance with Government code 65996, the developer shall pay the statutory school impact fee to offset the increased demands on school facilities caused by the proposed project.

#### 4.13.2.4 *Parks*

The City of San José has adopted the *Parkland Dedication Ordinance* (PDO) (Municipal Code Chapter 19.38) and *Park Impact Ordinance* (PIO) requiring residential developers to dedicate public parkland or pay in-lieu fees, or both, to offset the demand for neighborhood parkland created by their housing developments. Each new residential project is required to conform to the PDO and PIO. The acreage of parkland required is based upon the Acreage Dedication Formula disclosed in the Parkland Dedication Ordinance.<sup>32</sup> Based upon this formula, a project of this size would be required to dedicate approximately 2.49 acres of parkland. However, the project proposes to pay in-lieu fees to offset the increase in demand for park and recreational services due to the project.

**Standard Measures:** The project proposes to implement the following standard measures:

**SM PS-2:** The project shall conform to the City's *Park Impact Ordinance* (PIO) and *Parkland Dedication Ordinance* (PDO) (Municipal Code Chapter 19.38).

#### 4.13.2.5 *Libraries*

The San José Public Library System is currently expanding with funds from a bond measure passed by voters in November 2000. The bond measure will provide for the construction of six new branch libraries and the expansion of 14 existing branch libraries.<sup>33</sup> Based on the City's current plans for construction of new library facilities and expansion of existing libraries, including the recent

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<sup>30</sup> Paoli & Odell, Inc. San José Unified School District Student Generation Rates. 2006. Generation rates for condominiums are 0.116 for grades K-5, 0.057 for grades 6-8, and 0.065 for grades 9-12. Generation rates for townhouses are 0.133 for grades K-5, 0.071 for grades 6-8, and 0.062 for grades 9-12.

<sup>31</sup> Bob Gonzales, Director of Student Assignment and Demographics. Personal communication. October 16, 2007.

<sup>32</sup> Minimum Acreage Dedication = (0.003 acres) x (number of dwelling units) x (average persons per household per Census data). Proposed project = (0.003 acres) x (259 units) x (3.20 persons per household in San Jose per 2000 Census data) = approximately 2.49 acres.

<sup>33</sup> San José Public Library. [Bond Projects for Branch Libraries](http://www.sjlibrary.org/about/sjpl/bond/). 13 April 2007.  
<http://www.sjlibrary.org/about/sjpl/bond/>

expansion of the Rosegarden Branch Library, the project would not result in the need for new library facilities.

#### **4.13.3            Conclusion**

The proposed project would incrementally increase demand for public services but would not, with the implementation of standard measures (SM PS-1 and PS-2) result in a significant impact to public services or facilities. **(Less Than Significant Impact)**

## 4.14 RECREATION

### 4.14.1 Setting

The City of San José currently manages 3,500 acres of regional and neighborhood parkland. The City provides developed park lands, open space, and community facilities to serve its residents. Some of these facilities are supplemented by other public uses such as public school playgrounds and fields, County parks, and trail facilities on Santa Clara Valley Water District lands. Park and recreation facilities vary in size, use, type of service, and provide for neighborhood, citywide, and regional uses. The City Departments of Parks, Recreation and Neighborhood Services, General Services, and Public Works are responsible for the design, construction, operation, and maintenance of all City park and recreational facilities.

The City's General Plan has established level of service benchmarks for parks and community centers. The City has a service level goal of 3.5 acres of neighborhood and community serving parkland per 1,000 residents, of which a minimum of 1.5 acres is City-owned and up to two acres of school playground /fields, all of which should be located within three-quarters of a mile walking distance of each residence. In addition, the City seeks to provide 7.5 acres of regionally serving parkland and 500 square feet of community center space per 1,000 residents.

The project site is located in Council District 6, which has 18 neighborhood parks. The nearest city park to the project site is Columbus Park, which is approximately 1.21 miles southeast of the site on Asbury Street and Walnut Street. The regional park closest to the project site is the Municipal Rose Garden, located approximately 1.17 miles south of the site. Council District 6 has a total of 282.4 acres of neighborhood/community serving parkland and requires an additional 13.84 acres to reach the City's goal of 3.5 acres per 1,000 residents. By 2020, the District will need an additional 70.54 acres to serve the increased population.<sup>34</sup>

The nearest City of Santa Clara park to the project site is Marsalli Park located on the southeast corner of El Camino Real and Lafayette Street approximately 3,200 feet northwest of the project site.

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<sup>34</sup> City of San José. City of San José Greenprint. 5 September 2000.  
<http://www.sjpark.org/greenprint/GP2000/Ch.%206%20Neighborhood%20District%20Strategies.PDF>

**4.14.2 Environmental Checklist and Discussion**

RECREATION						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
Would the project:						
1) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2
2) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2

The City of San José has adopted the *Parkland Dedication Ordinance* (PDO) (Municipal Code Chapter 19.38) and *Park Impact Ordinance* (PIO) requiring residential developers to dedicate public parkland or pay in-lieu fees, or both, to offset the demand for neighborhood parkland created by their housing developments. Each new residential project is required to conform to the PDO and PIO. The acreage of parkland required is based upon the Acreage Dedication Formula disclosed in the Parkland Dedication Ordinance.<sup>35</sup> Based upon this formula, a project of this size would be required to dedicate approximately 2.49 acres of parkland. However, the project proposes to pay in-lieu fees to offset the increase in demand for park and recreational services due to the project.

The proposed project would increase the number of residents on the site and would add to the residential population using nearby recreational facilities. The project, however, is not expected to increase the use of existing parks such that substantial deterioration

**Standard Measures:** The project proposes to implement the following standard measures:

**SM PS-2:** The project shall conform to the City’s *Park Impact Ordinance* (PIO) and *Parkland Dedication Ordinance* (PDO) (Municipal Code Chapter 19.38).

**4.14.3 Conclusion**

Implementation of the proposed project will result in the development of up to 259 new residential units on the site, which would incrementally increase the demand for recreational and park services in the area. This increase, however, would be offset through compliance with the City’s PDO/PIO (SM PS-2) and result in a less than significant impact. **(Less Than Significant Impact)**

<sup>35</sup> Minimum Acreage Dedication = (0.003 acres) x (number of dwelling units) x (average persons per household per Census data). Proposed project = (0.003 acres) x (259 units) x (3.20 persons per household in San Jose per 2000 Census data) = approximately 2.49 acres.

## 4.15 TRANSPORTATION

The following discussion is based on a Traffic Impact Analysis prepared by *Hexagon Transportation Consultants* in March 2008. A copy of this report is included as Appendix G of this Initial Study.

### 4.15.1 Setting

#### 4.15.1.1 *Existing Roadway Network*

The project site location and surrounding regional and local roadway network are described below and shown in Figure 11.

#### **Regional Access**

Interstate 880 (I-880) is a north/south freeway providing regional access to the project site from East Bay cities to San José, where it becomes SR 17. I-880 is oriented in a northeast/southwest direction with six mixed-flow lanes in the vicinity of the site. I-880 provides access to the site via its interchange with The Alameda.

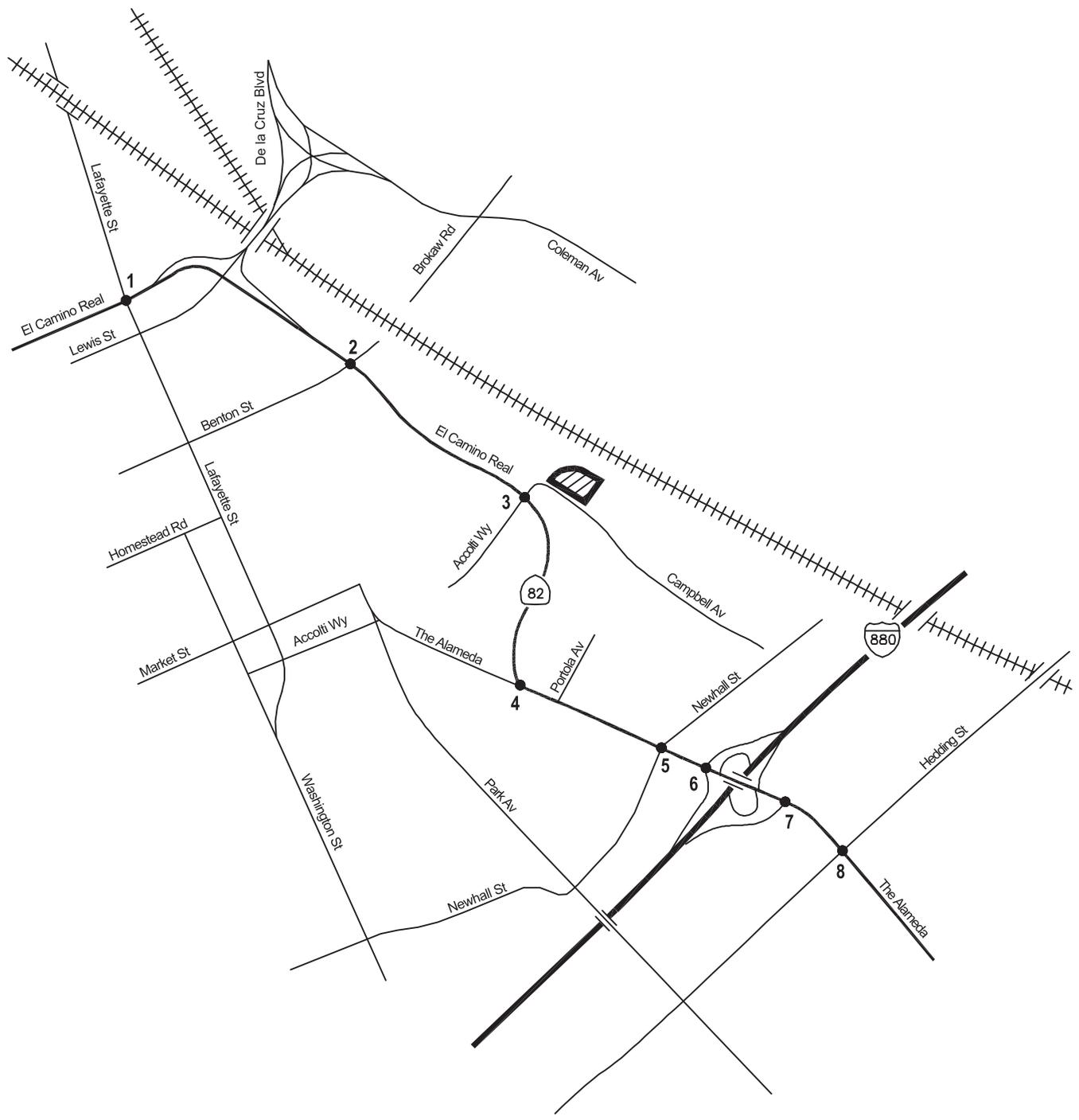
#### **Local Access**

Lafayette Street is a four-lane arterial that extends north-south from Gold Street north of SR 237 to the project area. North of El Camino Real and in the project vicinity, Lafayette Street is a four-lane arterial. South of El Camino Real Lafayette Street is a two-lane collector with a shared center left turn lane until it reaches Bellomy Street/Accolti Way, where it again becomes a four lane arterial as it begins its merge into Washington Street. Lafayette Street provides access to the site via its signalized intersection with El Camino Real.

El Camino Real is a six-lane major arterial that is aligned in a northwest/southeast orientation in the vicinity of the site. El Camino Real extends northward through San Francisco and southward through San Jose. El Camino Real provides access to the site via its signalized intersection with Campbell Avenue.

Benton Street is an east/west, two-lane collector street that provides direct access to the surrounding commercial and residential uses. It runs from El Camino Real in the east to just west of Lawrence Expressway. Benton Street provides access to the site via El Camino Real.

Campbell Avenue is a two-lane local roadway that provides direct access to the project site. West of El Camino Real, Campbell Avenue is renamed Accolti Way, which is a segmented road, with a short western segment that is broken by a pedestrian mall on the campus of Santa Clara University. West of campus, Accolti Way resumes and terminates at Washington Street. Due to traffic calming measures implemented in 2001 by the City of San José, access to Newhall Street from Campbell Avenue is closed. Thus, Campbell Avenue can only be accessed via El Camino Real and the western segment of Accolti Way.



Legend

-  = Site Location
-  = Study Intersection

EXISTING ROADWAY NETWORK AND STUDY INTERSECTIONS      FIGURE 11

The Alameda is a northwest/southeast, four-lane divided arterial that extends from South Autumn Street in downtown San José to Market Street in Santa Clara. The Alameda has a full-access interchange with I-880 and provides access to the site via its intersection with El Camino Real.

Hedding Street is a four-lane arterial that extends from North Winchester Boulevard in the south, to Berryessa Road just north of I-280. Hedding Street provides access to the site via The Alameda.

#### **4.15.1.2      *Existing Pedestrian and Bicycle Facilities***

Pedestrian facilities are comprised of sidewalks, crosswalks, and off-street paths. Pedestrian facilities in the study area consist of sidewalks along most of the surrounding roadways. Crosswalks with pedestrian signal heads are located at all signalized intersections in the study area. The existing pedestrian facilities provide good connectivity between the surrounding residential areas and the Santa Clara Transit Center, located approximately one half-mile northwest of the project site. A walkway where Accolti Way dead-ends cuts straight through the Santa Clara University campus and provides a safe and direct route for children to walk to two schools located approximately three-quarters of a mile southwest of the project site.

Bicycle facilities are comprised of paths (Class I), lanes (Class II), and routes (Class III). Bicycle paths are paved trails that are separate from roadways. Bicycle lanes are lanes on roadways designated for bicycle use by striping, pavement legends, and signs. Bicycle routes are roadways designated for bicycle use by signs only. The only County-designated bicycle facilities within the project study area are located along Poplar Street and a small segment of The Alameda between Park Avenue and El Camino Real. According to the City of *San Jose Transportation Bicycle Network (TBN) Planning Map*, The Alameda is designated a Class III bike route south of its junction with El Camino Real. Due to low traffic volumes and vehicle speeds, the surrounding residential streets also provide safe routes for bicyclists. Figure 12 shows the existing bicycle facilities.

#### **4.15.1.3      *Existing Transit Service***

Existing transit service in the project area is provided by the Santa Clara Valley Transportation Authority (VTA), Caltrain, and the Altamont Commuter Express (ACE). These transit services in the project area are described below and shown in Figure 13.

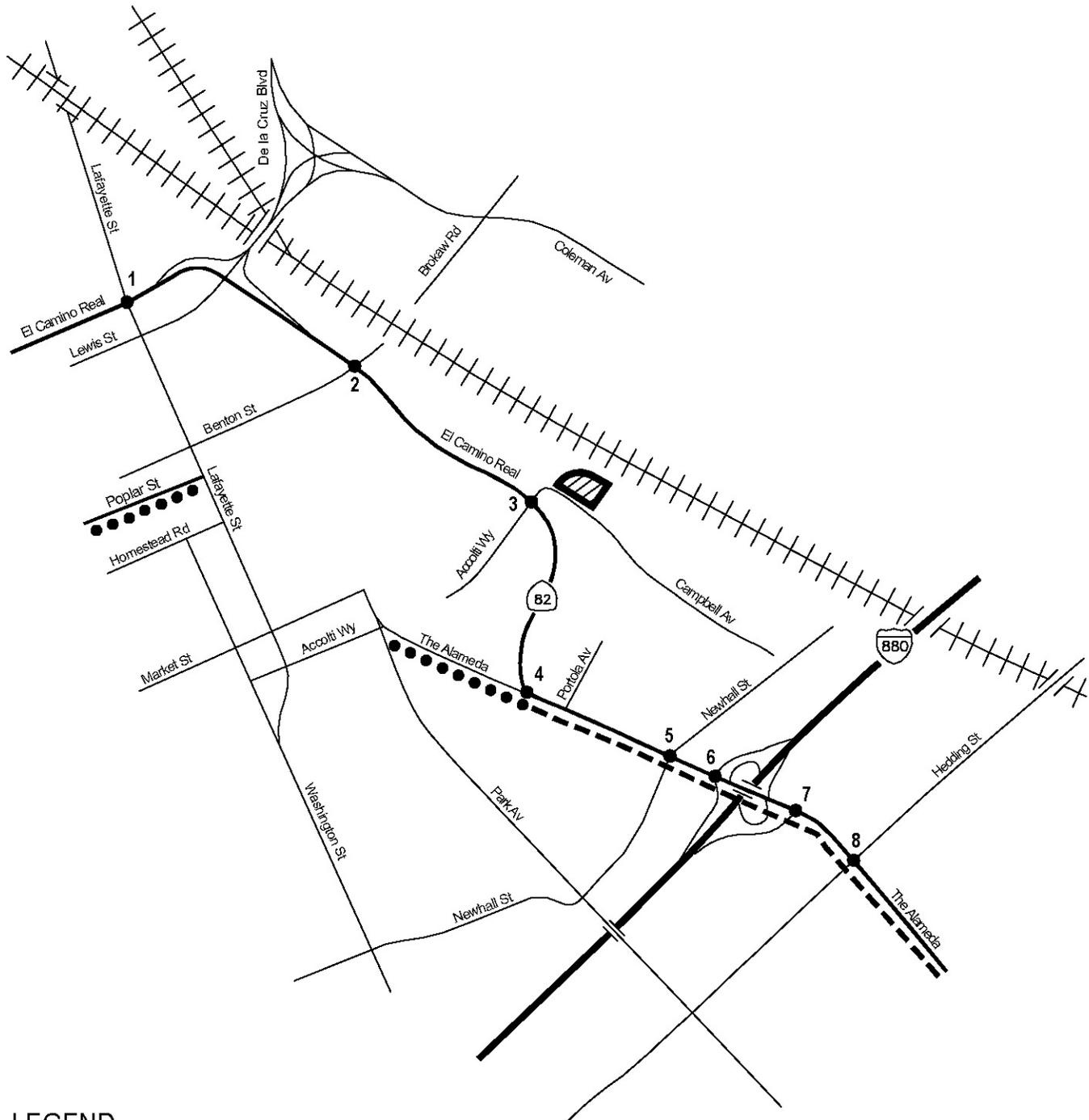
##### **VTA Bus Service**

The Santa Clara Valley Transportation Authority (VTA) operates bus and light rail service in Santa Clara County.

Bus Route 10 is the Airport Flyer Service between the Metro/Airport LRT station and the Santa Clara Transit Center. It operates along El Camino Real and De La Cruz Boulevard from 5:00am to midnight with 15- to 30-minute headways depending on the time of day.

Bus Route 22 provides service between the Eastridge Mall and Palo Alto/Menlo Park. It runs 24 hours a day with 10- to 15-minute headways during the commute hours. Route 22 operates along El Camino Real and provides service to the Santa Clara Transit Center.

Bus Route 32 provides service between the Santa Clara Transit Center and the San Antonio shopping center. It runs between 5:30am and 7:30pm with 30-minute headways. Route 32 operates along Benton Street and El Camino Real near the site.



LEGEND

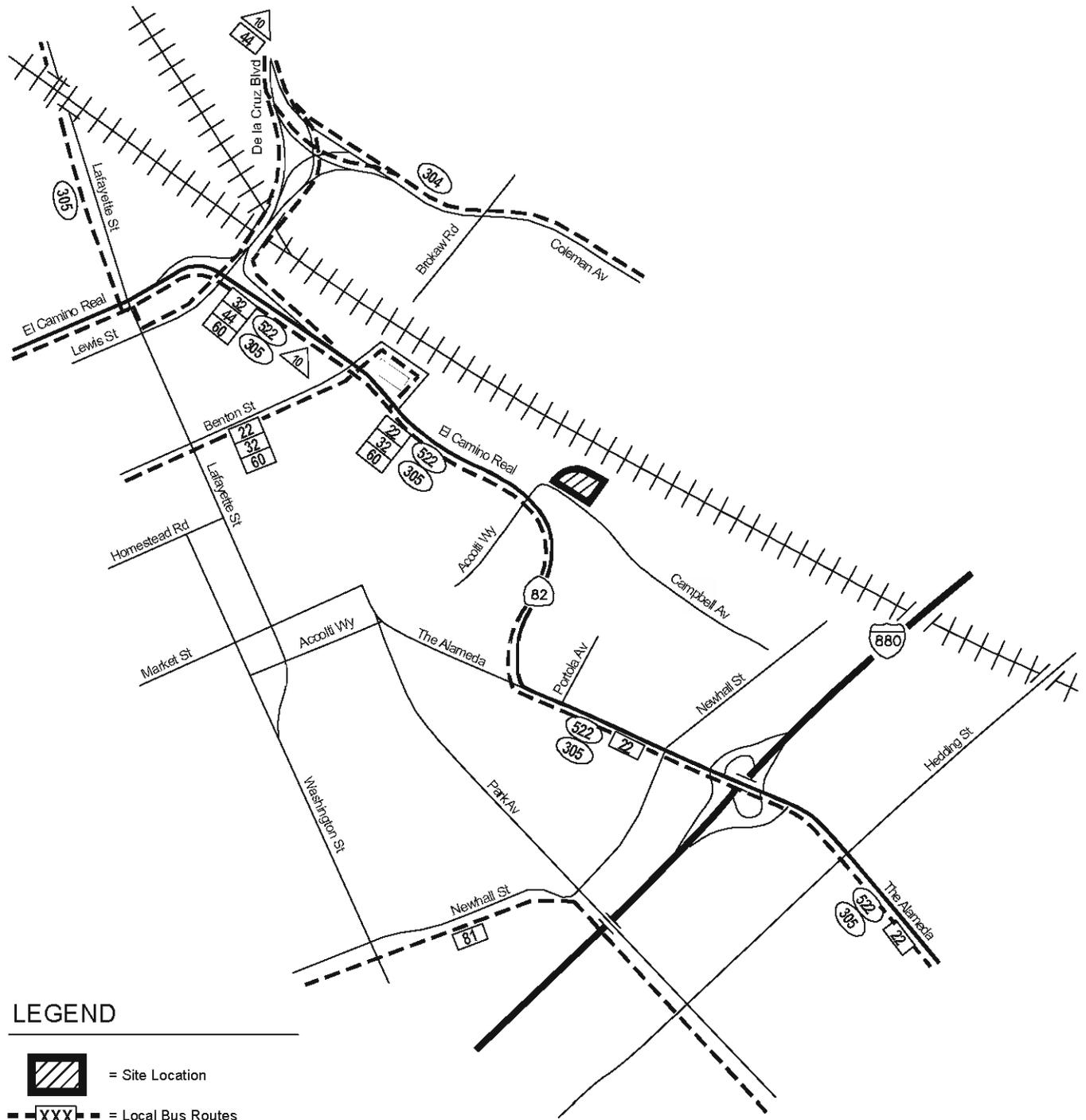
-  = Site Location
-  = Existing Bike Lanes
-  = Existing Bike Route

EXISTING BICYCLE FACILITIES

FIGURE 12



Not to Scale



### LEGEND

-  = Site Location
-  = Local Bus Routes
-  = Limited Stop Bus Routes
-  = VTA/SJC Airport Flyer
-  = Santa Clara Caltrain and ACE Station

EXISTING TRANSIT FACILITIES

FIGURE 13

Bus Route 44 provides service between the Santa Clara Transit Center and the North First/River Oaks intersection in north San José. It operates from the hours of 6:30am to 9:00am and 3:30pm to 6:00pm with 30- to 60-minute headways. Route 44 operates along El Camino Real near the site.

Bus Route 60 provides service between Los Gatos and Great America between the hours of 5:30am and 11:00pm, with 15- to 30-minute headways during the commute hours. Route 60 operates along El Camino Real and provides service to the Santa Clara Transit Center.

Bus Route 81 provides service between East San José and Vallco Park. In the general vicinity of the project, Route 81 runs along Park Avenue and Newhall Street. It operates between the hours of 6:00am and 10:30pm, with 30-minute headways during the commute hours.

Bus Route 304 (Limited Stop) provides service between south San José and Mountain View. It operates from 5:30am to 9:00am and 3:30pm to 7:00pm, with 30-minute headways during the hours of operation. Route 304 operates along De la Cruz Boulevard and Coleman Avenue.

Bus Route 305 (Limited Stop) provides service between south San José and Mountain View. It operates from 5:00am to 8:00am and 3:00pm to 6:30pm, with 60-minute headways during the hours of operation. Route 305 operates along El Camino Real and provides service to the Santa Clara Transit Center.

Bus Route 522 (Rapid) provides service between Eastridge Mall and the Palo Alto Transit Center. It operates between 5:00am and 9:00pm with 15-minute headways during the commute hours. Route 522 operates along The Alameda and El Camino Real near the project site and provides service to the Santa Clara Transit Center.

### **Commuter Rail Service**

The project site is located approximately 1,500 feet from the Santa Clara Transit Center. The Santa Clara Transit Center is currently served by Caltrain, Altamont Commuter Express (ACE), and VTA bus lines. There is a Park & Ride lot as well as bicycle lockers located at the Santa Clara Transit Center.

Caltrain provides frequent passenger train service between San José and San Francisco seven days a week. During commute hours, Caltrain provides extended service to Morgan Hill and Gilroy.

The ACE train provides commuter passenger train service between Stockton and San José during the weekdays. ACE stops at the Santa Clara Transit Center three times in the morning and evening hours.

The future Santa Clara BART station is also planned at the terminus of Brokaw Road. When constructed this station would also serve the project area.

#### **4.15.1.4 Intersection Level of Service Methodology**

The operations of roadway facilities are described with the term level of service (LOS). LOS is a qualitative description of traffic flow based on such factors as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, with the best operating conditions, to LOS F, with the worst operating conditions. LOS E represents “at-capacity” operations. Operations are

designated as LOS F when volumes exceed capacity, resulting in stop-and-go conditions. The correlation between delay and level of service is shown in Table 4.15-1.

The City of San José has established a minimum acceptable operating level of LOS D for intersections excluded from the Congestion Management Program (CMP). The minimum acceptable level for CMP-monitored intersections is LOS E.

### Signalized Intersections

The signalized study intersections are subject to the City of San José level of service standards. The City of San José level of service methodology is TRAFFIX, which is based on the *Highway Capacity Manual (HCM) 2000* method for signalized intersections. TRAFFIX evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. Since TRAFFIX also is the CMP-designated intersection level of service methodology, the City of San José methodology employs the CMP default values for the analysis parameters. The City’s level of service standard for signalized intersections is LOS D or better.

Although the project site is located primarily in the City of San José, four of the study intersections are located within the City of Santa Clara. The City of Santa Clara level of service standard for signalized intersections also is LOS D or better. Therefore, the City of San José methodology can be applied to the Santa Clara intersections as well, and a separate level of service analysis for these intersections is not necessary.

Five of the study intersections are CMP intersections and, therefore, were analyzed according to the CMP requirements. The CMP level of service methodology is the same as that used by the City of San José, except that the CMP level of service standard for signalized intersections is LOS E or better.

<b>Level of Service</b>	<b>Description</b>	<b>Average Control Delay Per Vehicle (Seconds)</b>
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	55.1 to 80.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	> 80.0

Source: *Transportation Research Board, Highway Capacity Manual, 2000.*

### Freeway Segments

Freeway segments are evaluated using Santa Clara County’s analysis procedure, which is based on the density of the traffic flow using methods described in the 2000 HCM. Density is expressed in passenger cars per mile per lane. The Congestion Management Program range of densities for freeway segment level of service is shown in Table 4.15-2. The LOS standard for the freeway segments is LOS E or better.

<b>Table 4.15-2 Freeway Segment Level of Service Definitions</b>		
<b>Level of Service</b>	<b>Description</b>	<b>Density (Vehicles Per Mile Per Lane)</b>
A	Average operating speeds at the free-flow speed generally prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.	0 to 11
B	Speeds at the free-flow speed are generally maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high.	>11 to 18
C	Speeds at or near the free-flow speed of the freeway prevail. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more vigilance on the part of the driver.	>18 to 26
D	Speeds begin to decline slightly with increased flows at this level. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort levels.	>26 to 46
E	At this level, the freeway operates at or near capacity. Operations in this level are volatile, because there are virtually no usable gaps in the traffic stream, leaving little room to maneuver within the traffic stream.	>46 to 58
F	Vehicular flow breakdowns occur. Large queues form behind breakdown points.	> 58

Source: Santa Clara County 2004 CMP (based on the 2000 Highway Capacity Manual, Transportation Research Board).

#### 4.15.1.5 Existing Conditions

### Intersection Levels of Service

The results of the intersection level of service analysis under existing conditions are summarized in Table 4.15-3. All of the signalized study intersections currently operate at acceptable levels of service during both the AM and PM peak hours of traffic. The level of service calculation sheets are included in Appendix G.

Intersection		Peak Hour <sup>1</sup>	Existing		Background	
			Delay <sup>2</sup>	LOS <sup>3</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>
1	Lafayette Street/ El Camino Real*	AM	51.0	D	55.2	E
		PM	44.4	D	48.8	D
2	El Camino Real/ Benton Street	AM	15.9	B	16.8	B
		PM	20.5	C	22.7	C
3	El Camino Real/ Campbell Avenue	AM	14.3	B	16.3	B
		PM	24.6	C	24.9	C
4	El Camino Real/ The Alameda*	AM	19.7	B	20.6	C
		PM	22.6	C	24.8	C
5	The Alameda/ Newhall Street	AM	15.2	B	12.9	B
		PM	13.2	B	10.4	B
6	I-880 (SB)/ The Alameda (N)*	AM	24.6	C	24.9	C
		PM	14.3	B	15.8	B
7	I-880 (NB)/The Alameda (S)*	AM	23.3	C	23.4	C
		PM	18.8	B	19.1	B
8	The Alameda/ Hedding Street	AM	39.6	D	40.8	D
		PM	33.7	C	35.6	D

Notes:  
<sup>1</sup> AM = morning peak-hour, PM = evening peak-hour  
<sup>2</sup> Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop intersections using method described in the 2000 Highway Capacity Manual. For two-way stop controlled unsignalized intersections, total control delay for the worst movement/approach, expressed in seconds per vehicle, is presented. LOS calculations conducted using the TRAFFIX level of service analysis software package.  
<sup>3</sup> LOS = Level of service  
\* C/CAG-designated Congestion Management Program (CMP) facilities (Intersection LOS standard is E)  
Unacceptable operations are designated in **bold** type

### Freeway Segment Levels of Service

Traffic volumes for the study freeway segments were obtained from the *2005 CMP Annual Monitoring Report*. The results of the analysis are summarized in Table 4.15-4. The results show that the following study freeway segments currently operate at LOS F in at least one direction during at least one of the peak hours of traffic as indicated below:

- I-880, northbound between Stevens Creek Boulevard and Bascom Avenue – AM peak hour
- I-880, southbound between Stevens Creek Boulevard and Bascom Avenue – PM peak hour
- I-880, northbound between Bascom Avenue and The Alameda – AM peak hour
- I-880, southbound between The Alameda and Bascom Avenue – PM peak hour
- I-880, northbound between The Alameda and Coleman Avenue – AM peak hour
- I-880, southbound between Coleman Avenue and The Alameda – PM peak hour
- I-880, northbound between Coleman Avenue and SR 87 – AM peak hour
- I-880, southbound between SR 87 and Coleman Avenue – PM peak hour

**Table 4.15-4  
Existing Freeway Segment Levels of Service**

Direction <sup>1</sup>	From	To	Peak Hour <sup>2</sup>	Mixed-Flow	
				Density <sup>3</sup>	LOS <sup>4</sup>
<b>I-880</b>					
NB	Stevens Creek Boulevard	North Bascom Avenue	AM	<b>88</b>	<b>F</b>
			PM	36	D
SB	North Bascom Avenue	Stevens Creek Boulevard	AM	28	D
			PM	<b>56</b>	<b>F</b>
NB	North Bascom Avenue	The Alameda	AM	<b>56</b>	<b>F</b>
			PM	29	D
SB	The Alameda	North Bascom Avenue	AM	27	D
			PM	<b>68</b>	<b>F</b>
NB	The Alameda	Coleman Avenue	AM	<b>62</b>	<b>F</b>
			PM	33	D
SB	Coleman Avenue	The Alameda	AM	30	D
			PM	<b>74</b>	<b>F</b>
NB	Coleman Avenue	SR 87	AM	<b>55</b>	<b>F</b>
			PM	37	D
SB	SR 87	Coleman Avenue	AM	38	D
			PM	<b>71</b>	<b>F</b>
Source: VTA CMP Monitoring Study, 2005					
Notes:					
<sup>1</sup> NB = Northbound, SB = Southbound					
<sup>2</sup> AM = morning peak-hour, PM = evening peak-hour					
<sup>3</sup> Measured in passenger cars per mile per lane					
<sup>4</sup> LOS = Level of service					
Unacceptable operations are designated in <b>bold</b> type.					

### Field Observations of Existing Conditions

Traffic conditions in the field were observed in order to identify existing operational deficiencies and to confirm the accuracy of calculated levels of service. The purpose of this effort was to identify any existing traffic problems that may not be directly related to level of service, and to identify any locations where the level of service analysis does not accurately reflect existing traffic conditions.

Overall the study intersections operated well during the AM and PM peak hours of traffic, and the level of service analysis appears to accurately reflect actual existing traffic conditions.

#### 4.15.1.6 Background Conditions

Background conditions are defined as conditions just prior to completion of the proposed development. Traffic volumes for background conditions comprise volumes from existing traffic counts plus traffic generated by other approved developments in the vicinity of the site.

#### Background Traffic Estimates

Background peak hour traffic volumes were estimated by adding to existing traffic volumes, the volumes from approved but not yet completed developments in the vicinity of the project site. The

added traffic from approved developments was provided by the City of San José in the form of the Approved Trips Inventory (ATI). The added traffic from approved developments in the City of Santa Clara were gathered from the City’s TRAFFIX network and previously prepared TIA reports. To account for the existing vacant R&D building on the project site, traffic that previously would have been generated by full occupancy of the building was estimated by multiplying the applicable City of San José trip generation rates by the amount of building space. The estimated trips were assigned to the surrounding roadway network according to the existing travel patterns in the project area and the locations of complementary land uses. These estimated R&D trips make up the final ATI component. Thus, background peak hour traffic volumes were estimated by adding to existing peak hour volumes the peak hour volumes due to approved but not yet constructed developments in the area and the estimated R&D building trips based on full occupancy.

**Background Roadway Improvements**

It is assumed in this analysis that the transportation network under background conditions would be the same as the existing transportation network.

**Background Intersection Levels of Service**

The results of the intersection level of service analysis under background conditions are summarized in Table 4.15-3 on page 87. All of the signalized study intersections would operate at acceptable levels of service during both the AM and PM peak hours of traffic under background conditions.

According to CMP level of service standards, all of the CMP study intersections would operate at acceptable levels of service during the both the AM and PM peak hours of traffic under background conditions.

**4.15.2 Environmental Checklist and Discussion**

TRANSPORTATION/TRAFFIC						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
Would the project:						
1) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio of roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19
2) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19
3) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

TRANSPORTATION/TRAFFIC						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
Would the project:						
4) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19
5) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19
6) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19
7) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,19

**4.15.2.1 Significant Impact Criteria**

**Signalized Intersections**

Significant impacts at signalized San José and Santa Clara intersections occur when project traffic causes one of the following:

- The level of service at an intersection to degrade from an acceptable level (LOS D or better) under background conditions to an unacceptable level (LOS E or F) under project conditions; or
- The level of service at an intersection operating with an unacceptable LOS E or F under background conditions to be exacerbated by increasing the critical delay by more than 4 seconds and increasing the volume-to-capacity (V/C) ratio by 0.01 or more.

**VTA Congestion Management Program Intersections**

Significant impacts at CMP intersections occur when project traffic causes one of the following:

- The level of service at an intersection to degrade from an acceptable level (LOS E or better) under Background Conditions to an unacceptable level (LOS F) under Project Conditions; or
- The level of service at an intersection operating with an unacceptable LOS F under background conditions to be exacerbated by increasing the critical delay by more than 4 seconds and increasing the volume-to-capacity (V/C) ratio by 0.01 or more.

**Freeways**

Significant impacts to freeway segments occur when the addition of project traffic causes one of the following:

- The level of service on the freeway segment to degrade from an acceptable LOS E or better under existing conditions to an unacceptable LOS F under project conditions; or
- The addition of traffic equal to one percent of the segment capacity on a freeway segment operating at an unacceptable LOS F under project conditions.

#### 4.15.2.2 Project Conditions

Project conditions are defined as background conditions plus traffic generated by the proposed project. The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution, an estimate is made of the directions to and from which the project trips would travel. In the project trip assignment, the project trips are assigned to specific streets and intersections.

#### Trip Generation

Based on the residential rates recommended by the City of San José, the proposed project would generate 1,950 gross daily vehicle trips, with 195 trips occurring during both the AM and PM peak hours. Trip credits were estimated to account for the vacant 82,000 square-foot R&D building currently on the site. After subtracting the existing facility's potential vehicle trips, the residential project would generate 1,295 net daily trips, with 90 new AM peak hour trips and 103 new PM peak hour trips.<sup>36</sup> Using the inbound/outbound splits recommended by the City of San José, the project would produce 16 fewer inbound and 106 new outbound trips during the AM peak hour, and 118 new inbound and 15 fewer outbound trips during the PM peak hour than the existing vacant R&D building could potentially generate. The project trip generation estimates are presented in Table 4.15-5.

Use	Daily		AM Peak Hour				PM Peak Hour			
	Rate	Total	Rate	In	Out	Total	Rate	In	Out	Total
Condominium/ Townhouse – 260 units (Proposed)	7.5	1,950	0.10	68	127	195	0.10	127	68	195
Research and Development – 82,000 s.f. (Existing)	8.0	655	0.16	84	21	105	0.14	9	83	92
Net New Project Trips	--	1,295	--	-16	106	90	--	118	-15	103

Source: City of San José Interim Guidelines for Traffic Impact Analysis for Land Developments, *Common Vehicular Trip generation Rates for the San José Area*, 1994.

#### Trip Distribution and Assignment

The trip distribution pattern for the proposed residential project was estimated based on existing travel patterns in the area, the locations of complementary land uses, and previous traffic studies. Based on the project site's location, it was assumed that the trip distribution patterns for the proposed residential development and the existing R&D use would be identical. However, the existing peak direction of travel at the site would be reversed.

<sup>36</sup> The Transportation Impact Analysis for the project was completed using a higher number of residential units for the project than currently proposed. This impact analysis, therefore, should be considered conservative and the project's actual impacts would be slightly reduced.

The peak hour trips generated by the proposed residential development and the existing R&D space were assigned to the roadway system in accordance with the trip distribution patterns discussed above.

### Project Intersection Levels of Service

The results of the intersection level of service analysis under project conditions are summarized in Table 4.15-6. The results show that the signalized study intersection of Lafayette Street and El Camino Real would continue to operate at an unacceptable level of service (LOS E). However, based on the applicable level of service standards, this study intersection would not be significantly impacted by the project. The other study intersections would operate at an acceptable level of service during both the AM and PM peak hours of traffic under project conditions.

Based on the CMP level of service standards, all of the CMP signalized study intersections, including Lafayette Street and El Camino Real, would operate at acceptable levels of service during both the AM and PM peak hours of traffic under project conditions. Therefore, none of the CMP intersections would be significantly impacted by the project. The intersection level of service calculation sheets are included in Appendix G.

Intersection		Peak Hour <sup>1</sup>	Background		Project			
			Delay	LOS <sup>2</sup>	Delay	LOS <sup>2</sup>	Δ in V/C <sup>3</sup>	Δ in Delay
1	Lafayette Street/El Camino Real*	AM	55.2	E	55.4	E	+0.3	0.00
		PM	48.8	D	48.8	D	-0.1	0.00
2	El Camino Real/Benton Street	AM	16.8	B	16.6	B	-0.2	+0.01
		PM	22.7	C	22.7	C	-0.1	+0.01
3	El Camino Real/Campbell Avenue	AM	16.3	B	21.1	C	+5.1	+0.04
		PM	24.9	C	24.5	C	-0.5	-0.01
4	El Camino Real/The Alameda*	AM	20.6	C	20.6	C	-0.1	0.00
		PM	24.8	C	24.4	C	-0.2	0.00
5	The Alameda/Newhall Street	AM	12.9	B	12.8	B	0.0	0.00
		PM	10.4	B	10.3	B	0.0	0.00
6	I-880 (SB)/The Alameda (N)*	AM	24.9	C	24.8	C	-0.2	-0.01
		PM	15.8	B	17.1	B	+1.8	+0.02
7	I-880 (NB)/The Alameda (S)*	AM	23.4	C	23.4	C	0.0	0.00
		PM	19.1	B	19.4	B	0.0	0.00
8	The Alameda/Hedding Street	AM	40.8	D	40.7	D	0.0	0.00
		PM	35.6	D	35.6	D	0.0	+0.01

Notes:  
<sup>1</sup> AM = morning peak-hour, PM = evening peak-hour  
<sup>2</sup> LOS = Level of service  
<sup>3</sup> Change in the critical volume-to-capacity ratio (V/C) between background and project conditions.  
 \* C/CAG-designated Congestion Management Program (CMP) facilities (Intersection LOS standard is E)  
 Unacceptable operations are designated in **bold** type

**Vehicle Queuing Campbell Avenue/El Camino Real Intersection**

A future operations analysis was completed based on vehicle queuing for high-demand turning-movements at the Campbell Avenue and El Camino Real intersection. The maximum vehicle queues for the westbound left-turn movement from Campbell Avenue currently exceed the existing vehicle storage capacity of 100 feet during both the AM and PM peak hours of traffic. An additional 175 feet of vehicle storage currently is needed for this left-turn movement during the PM peak hour, which is when the vehicle queues are longest. The City of San José currently plans to widen the Campbell Avenue and El Camino Real intersection. The planned left-turn vehicle storage capacity of approximately 350 feet per lane would be adequate to serve the estimated maximum vehicle queues for the westbound left-turn movement. A separate right-turn lane is also being proposed as part of these improvements (refer to Appendix G). A separate right-turn lane would be warranted based on the estimated peak hour volumes and associated vehicle queuing on Campbell Avenue. These planned roadway improvements will require Caltrans review and approval.

**4.15.2.3 Project Freeway Segment Levels of Service**

Traffic volumes on the study freeway segments under project conditions were estimated by adding project trips to the existing volumes obtained from the 2005 CMP Annual Monitoring Report. The results of the CMP freeway analysis show that the project would not cause significant increases in traffic volumes (more than one percent of freeway capacity) on any of the studied freeway segments. The results of the CMP freeway level of service analysis under project conditions are summarized in Table 4.15-7.

Table 4.15-7 Project Freeway Segment Levels of Service								
Direction	From	To	Peak Hour	Existing Plus Project Trips			Project Trips	
				Volume	Density	LOS	Volume	% Capacity
<b>I-880</b>								
NB	Stevens Creek Blvd.	North Bascom Ave.	AM	4,750	88	F	0	0.0%
			PM	6,625	36	D	35	0.5%
SB	North Bascom Ave.	Stevens Creek Blvd	AM	5,572	28	D	32	0.5%
			PM	6,050	56	F	0	0.0%
NB	North Bascom Ave.	The Alameda	AM	6,050	56	F	0	0.0%
			PM	5,695	29	D	35	0.5%
SB	The Alameda	North Bascom Ave.	AM	5,382	27	D	32	0.5%
			PM	5,510	68	F	0	0.0%
NB	The Alameda	Coleman Avenue	AM	5,982	62	F	32	0.5%
			PM	6,340	33	D	0	0.0%
SB	Coleman Avenue	The Alameda	AM	5,850	30	D	0	0.0%
			PM	5,365	74	F	35	0.5%
NB	Coleman Avenue	SR 87	AM	6,142	55	F	32	0.5%
			PM	6,550	37	D	0	0.0%
SB	SR 87	Coleman Avenue	AM	6,610	38	D	0	0.0%
			PM	5,575	71	F	35	0.5%

Source: VTA Congestion Management Program Monitoring Study, 2005.

#### **4.15.2.4      *Impacts to Pedestrian and Bicycle Facilities***

##### **Pedestrian Facilities**

Pedestrian facilities in the study area consist of sidewalks along most of the surrounding roadways. Crosswalks with pedestrian signal heads are located at all signalized intersections in the study area. The existing sidewalks provide good connectivity between the surrounding residential areas and the Santa Clara Transit Center, located approximately 1,500 feet northwest of the project site. The existing pedestrian facilities in the study area would provide pedestrians with safe and easy access to the surrounding land uses and would be adequate to serve the anticipated pedestrian demand.

##### **Bicycle Facilities**

The only County-designated bicycle facilities within the project study area are located along Poplar Street and a small segment of The Alameda near Poplar Street. However, according to the City of San Jose Transportation Bicycle Network (TBN) Planning Map, The Alameda is designated a Class III bike route south of its junction with El Camino Real. The TBN map also shows that future bicycle facilities are planned along Hedding Street and Park Avenue south of Hedding Street within the project area. Although some of the roadways in the project area are not considered ideal routes for bicyclists due to heavy traffic volumes, frequent bus service and stops, and relatively high vehicle speeds (e.g., El Camino Real), bicyclists may nonetheless choose to use them for commuting purposes since they often provide the shortest route. A reasonable assumption for bicycle trip generation would be a one percent mode share. This calculates to approximately one new bicycle trip during both the AM and PM peak hours under project conditions. Thus, the project would be expected to add very little bicycle traffic to the roadways in the study area.

#### **4.15.2.5      *Transit Impacts***

Numerous bus routes operate along El Camino Real. Additionally, the Santa Clara Transit Center is located approximately 1,500 feet from the project site. Due to the number of bus routes operating in the area and the nearby Transit Center, it is assumed that some residents would utilize the existing transit services for commuting purposes. Assuming up to five percent transit mode share during the peak commute periods yields an estimate of five new transit trips during both the AM and PM peak hours under project conditions. These new riders easily could be accommodated by the available ridership capacity of the existing transit service in the project study area.

#### **4.15.2.6      *Other Transportation Issues***

##### **Emergency Vehicle Access**

The internal roadway network would consist of a 26-foot wide private perimeter street circling the site. The project would also have a short loop driveway off of Campbell Avenue for deliveries and short-term parking. This one-way driveway would be 20 feet wide at the two curb interfaces and 24 feet wide along the curve where three parallel parking spaces would be provided. Emergency vehicle access would be provided by the private perimeter street for the project's north, east and west sides, and by Campbell Avenue for the project's south side. Analysis using the WB-40 and SU-30 truck turning templates shows that the loop driveway, the resident site access driveways, and the private perimeter street would be adequate to accommodate the turning movements of these trucks.

## **Parking**

The internal roadway network would consist of a 26-foot wide private perimeter street circling the site and a parking garage with 24-foot wide drive aisles. This drive aisle would have 90-degree parking and two resident garage access driveways on opposite sides of the parking garage. A visitor parking area in the proposed garage would be accessed at a separate entrance on the east side of the proposed building. The perimeter drive aisle would be 26 feet in width. The two resident garage access driveways would be connected within the garage by a central drive aisle spanning the garage east to west. The resident garage would have nine aisles with 90-degree assigned resident parking. Based on the proposed number and type of units the project is required to provide 410 parking spaces. The project is proposing to provide 438 parking spaces and therefore would have 28 spaces more than required by the City's parking standards.

Within the resident garage, three aisles would have parking at the end of the aisles. At these locations vehicles would be required to make a difficult three-point turning maneuver in order to exit. The majority of parking spaces within these three aisles have been designated compact which would help to minimize maneuverability issues. The City of San José ultimately will determine whether the potential safety issues would be sufficient to warrant the reconfiguration of these parking spaces.

### **4.15.3      Conclusion**

The proposed project would not result in significant transportation impacts. **(Less Than Significant Impact)**

## **4.16 UTILITIES AND SERVICE SYSTEMS**

### **4.16.1 Setting**

#### **4.16.1.1 *Water Service***

Water service is provided to the site by the San José Water Company. A 12-inch water main is present on the site. The existing development on the project site, if fully occupied, would use approximately 103,038<sup>37</sup> gallons of water per day.

#### **4.16.1.2 *Sanitary Sewer/Wastewater Treatment***

Sanitary sewer lines in the area are owned and maintained by the City of San José. There is currently a ten-inch sewer line along Campbell Avenue. The current building on the project site, if fully occupied, would generate approximately 87,582 gallons of sewage per day.<sup>38</sup>

Wastewater treatment service for the area is provided by the City of San José. The San José/Santa Clara Water Pollution Control Plant (WPCP) provides primary, secondary, and tertiary treatment of wastewater. The City's level of service goal for sewage treatment is to remain within the capacity of the WPCP. The existing capacity of the WPCP is 167 million gallons per day (mgd). The WPCP currently treats an average of 125 mgd and discharges 102 mgd effluent (dry weather peak) to the San Francisco Bay.

#### **4.16.1.3 *Storm Drainage***

Storm drainage lines are provided and maintained in the project area by the City of San José and City of Santa Clara. There is an existing 18-inch storm drainage line in Campbell Avenue in the City of San José. A 24-inch storm drainage line is also located in El Camino Real in the City of Santa Clara.

#### **4.16.1.4 *Solid Waste***

Collection service to non-residential properties is provided by a number of non-exclusive service providers and non-residential waste may be disposed at any of four privately owned landfills in San José. The project site, if fully occupied, would generate approximately 34,077 pounds of garbage per week.<sup>39</sup>

Residential solid waste and recycling collection services in the area are provided by Garden City Sanitation, California Waste Solutions, and Green Team of San José. San José has a contract with the Newby Island Landfill which extends to 2019. The City of San José disposes of approximately 225,000 tons of residential garbage per year at the Newby Island Landfill.

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<sup>37</sup> Water use for the existing development was estimated at 1.25 gallons per day per square foot of office space.

<sup>38</sup> Gene Golobic, Principal, Kier & Wright Civil Engineers. Existing and Proposed Sanitary Sewer Discharge. October 3, 2007.

<sup>39</sup> California Integrated Waste Management Board. Estimated Solid Waste Generation Rates for Commercial Establishments. 7 December 2004. 23 August 2005. <http://www.ciwmb.ca.gov/wastechar/wastegenrates/Commercial.htm>. Based on a waste generation rate of 0.0108 tons/sq. ft./year divided by 52 weeks.

**4.16.1.5 Electricity, Natural Gas, Telephone Services**

Electric and natural gas service would be provided to the project site by Pacific Gas & Electric (PG&E). Telephone service would be provided by AT&T.

**4.16.2 Environmental Checklist and Discussion**

UTILITIES AND SERVICE SYSTEMS						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
Would the project:						
1) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2
2) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2
3) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2
4) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2
5) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2
6) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2
7) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2

**4.16.2.1 Water Service**

The proposed PD zoning would allow up to 259 residential units on the site that would use approximately 54,908 gallons of water per day.<sup>40</sup> The proposed project would result in a decrease in water usage on the site when compared to the office/R&D development on the site, if fully occupied, and therefore would not require the expansion of existing water supplies or facilities.

<sup>40</sup> Based on a water usage rate of 212 gallons per day per residential unit.

In accordance with State law (SB 610) and CEQA, all projects that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project must provide an analysis of whether there is adequate water supply available to serve the development. The proposed project would not construct 500 dwelling units or result in an equivalent amount of water use and therefore, a water supply analysis is not required

#### **4.16.2.2 Sanitary Sewer/Wastewater Treatment**

The proposed project would generate approximately 46,620<sup>41</sup> gallons of sewage per day which would need to be transported and treated at the San José/Santa Clara Water Pollution Control Plant (WPCP). This increase would not exceed the capacity of the WPCP. The proposed project would generate approximately one-half the sewage of the existing building on the site, if fully occupied. In order to conform to the City of San José's Sanitary Sewer Level of Service Policy, a detailed analysis of sanitary sewer capacity will be completed prior to the issuance of a PD permit and any necessary capacity improvements identified. Any additional construction required outside of the existing project boundary to provide capacity improvements would be limited to the street right-of-way and would not result in any additional environmental impacts than those addressed in this Initial Study.

**Standard Measure:** The project proposes to implement the following standard measure:

**SM UTIL-1:** Prior to issuance of a Planned Development (PD) Permit, a sanitary sewer main LOS study will be completed by a qualified civil engineer to determine the need for improvements to the sanitary sewer infrastructure adjacent to the project site. The study will be submitted to the Department of Public Works project engineer for review and approval.

#### **4.16.2.3 Storm Drainage**

The proposed project would result in a five percent increase in impervious surfaces on the site (refer to *Section 4.8 Hydrology and Water Quality*). The project proposes to connect to an existing 24-inch City of Santa Clara storm drainage line in El Camino Real. This connection is anticipated to be made with an 18-inch storm drainage line connection from the site. The storm drainage line would be extended in the Campbell Avenue street right-of-way. The extension of this line would be subject to the stormwater quality control measures identified in *Section 4.8 Hydrology and Water Quality*.

#### **4.16.2.4 Solid Waste**

The proposed project is estimated to generate approximately 8,107 pounds of garbage and 1,735 pounds of recyclables per week.<sup>42</sup> The proposed project would result in a decrease in solid waste generated from the project site, compared to the former office/R&D use.

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<sup>41</sup> Gene Golobic, Principal, Kier & Wright Civil Engineers. Existing and Proposed Sanitary Sewer Discharge. October 3, 2007.

<sup>42</sup> The solid waste and recycling generation for the proposed project was based on solid waste generation rate of 31.3 pounds per household per week for multi-family residences and the recycling generation rate of 6.7 pounds per household per week for multi-family residences. Source: Godley, Laurel. City of San José Environmental Services Department. Personal Communications. 2 November 2006.

**4.16.2.5**      *Electricity, Natural Gas, and Telephone Service*

Facilities for providing electrical, natural gas, and telephone services are built and maintained by the public and private utilities which provide these services under their franchise agreements with the State of California. New and expanded facilities are paid for from capital funds financed by fees paid by users. Existing electric and gas utilities in the area are anticipated to be adequately sized to serve the proposed project.

**4.16.3**      **Conclusion**

The proposed project is not anticipated to exceed the capacity of existing utility and service systems. The proposed project with the implementation of standard measures (SM UTIL-1) would not result in significant impacts to utilities and services systems. **(Less Than Significant Impact)**

#### 4.17 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)/ Discussion Location
1) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2, p.13-105
2) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2, p.13-105
3) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2, p.13-105
4) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2, p.13-105

**Discussion:** With the implementation of the mitigation and standard measures included in the project and described in the specific sections of this report (refer to *Section 4. Environmental Checklist, Impacts, and Mitigation Measures*), on pages 13-99 of this Initial Study; the proposed project would not result in significant environmental impacts.

##### 4.17.1 Global Climate Change Impacts

Global climate change is the alteration of the Earth’s weather including its temperature, precipitation, and wind patterns. Global temperatures are affected by naturally occurring and anthropogenic-generated atmospheric gases, such as carbon dioxide, methane, and nitrous oxide. These gases allow sunlight into the Earth’s atmosphere, but prevent radiative heat from escaping into outer space, which is known as the “greenhouse” effect. The world’s leading climate scientists have reached consensus that global climate change is underway and is very likely caused by humans.<sup>43</sup>

<sup>43</sup> IPCC, 2007: Summary for Policymakers. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Available at: <http://www.ipcc.ch/>.

Agencies at the international, national, state, and local levels are considering strategies to control emissions of gases that contribute to global warming. There is no comprehensive strategy that is being implemented on a global scale that addresses climate change; however, in California a multi-agency “Climate Action Team”, has identified a range of strategies and the Air Resources Board, under Assembly Bill (AB) 32, has been designated to adopt the main plan for reducing California's greenhouse gas (GHG) emissions by January 1, 2009, and regulations and other initiatives for reducing GHG emissions by January 1, 2011. AB 32 requires achievement by 2020 of a statewide GHG emissions limit equivalent to 1990 emissions, and the adoption of rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions. By 2050, the state plans to reduce emission to 80 percent below 1990 levels.

While the state of California has established programs to reduce GHG emissions, there are no established standards for gauging the significance of greenhouse gas emissions. Neither CEQA nor the CEQA Guidelines provide any methodology for analysis of greenhouse gases. Given the global scope of global climate change, the challenge under CEQA is for a Lead Agency to translate the issue down to the level of a CEQA document for a specific project in a way that is meaningful to the decision making process. Under CEQA, the essential questions are whether a project creates or contributes to an environmental impact or is subject to impacts from the environment in which it would occur, and what mitigation measures are available to avoid or reduce impacts.

#### **4.17.1.1      *Impacts from the Project***

The proposed project would allow construction of up to 259 residential units on a site currently developed with an 82,000 square foot office/R&D building. The project would generate GHG primarily through vehicle trips and, to a lesser extent, electricity use and construction of the proposed buildings. Due to the location of the project in proximity to the Santa Clara Caltrain station, the proposed residents would likely opt to make some trips such as commuting by mass transit. The project also proposes to reuse some of the existing building materials on the project site. The project, therefore, would reduce some of the operational and construction GHG emissions.

Given the overwhelming scope of global climate change, it is not anticipated that a single development project would have an individually discernable effect on global climate change (e.g., that any increase in global temperature or rise in sea level could be attributed to the emissions resulting from one single development project). Rather, it is more appropriate to conclude that the GHG emissions generated by the proposed project would combine with emissions across the state, nation, and globe to cumulatively contribute to global climate change.

Based on the project's location on a developed urban site near mass transit facilities (i.e. Caltrain Station and future BART station), the fact that it proposes high density infill development, and the reuse of building materials, the project would be consistent with several strategies identified by the State of California Climate Action Team (CAT) to reduce GHG emissions.<sup>44</sup>

#### **4.17.1.2      *Impacts to the Project***

Impacts to the project from global climate change could include reduced water availability due to changes in the Sierra snowpack and/or droughts. Energy use could also rise as average temperatures rise. The project site is not within possible inundation areas from an up to three meter

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<sup>44</sup> These general strategies include strategies for increased recycling and reduced vehicle miles traveled (in this case, reusing construction materials from the site and supporting alternative transportation use).

(approximately 10 feet) rise in sea level.<sup>45</sup> Based on the project's location, the potential for the project to be adversely impacted by global climate change may be limited to a reduction in potable water supplies.

#### 4.17.1.3 *Significance of Cumulative Global Climate Change Impacts*

Declaring an impact significant or not implies some knowledge of incremental effects that is several years away, at best. To determine whether the proposed project would have a significant impact on global climate change is speculative, particularly given the fact that there are no existing numerical thresholds to determine an impact. However, in an effort to make a good faith effort at disclosing environmental impacts and to conform with the CEQA Guidelines [§16064(b)], it is the City's position that, based on the nature of this redevelopment project, its location within an established urban area served by existing infrastructure (rather than a greenfield site) and proximate to multi-modal mass transit, the proposed project would not impede the state's ability to reach the emission reduction limits/standards set forth by the State of California by Executive Order S-3-05 and AB 32.

#### 4.17.1.4 *Conclusion*

The proposed project would not result in significant unavoidable impacts or substantial new cumulative impacts associated with greenhouse gas emissions and global climate change. **(Less Than Significant Cumulative Impact)**

#### 4.17.2 Cumulative Traffic Impacts

The following discussion is based on a memorandum prepared by *Hexagon Transportation Consultants* in May 2008 which is included in Appendix G of this Initial Study.

Due to traffic calming measures implemented in 2001 by the City of San José, access to Newhall Street from Campbell Avenue is closed. Thus, Campbell Avenue can only be accessed via El Camino Real and the western segment of Accolti Way. This cumulative traffic analysis focuses on the potential for traffic generated by the on-going industrial to residential conversion of Campbell Avenue to impact the intersection of Campbell Avenue and El Camino Real.

Four residential projects have recently been approved and/or constructed on Campbell Avenue and several additional parcels are anticipated to be redeveloped with residential uses consistent with these other recent industrial to residential conversions. The approved projects include the 340-unit El Camino Real Apartments project (fully occupied), the 220-unit Pulte Homes project (90% occupied), the 113-unit Santa Clara Development project (75% occupied), and the 43-unit Robson Homes project (not yet built). The proposed PD zoning would replace an existing 82,000 square foot office/R&D building with up to 259 residential units. In addition, approximately 14.06 acres of remaining light industrial land on Campbell Avenue could be redeveloped for residential use resulting in an anticipated increase of 466 residential units. The conversion of the remaining light industrial land on Campbell Avenue would replace approximately 210,000 square feet of light industrial space.

The conversion of the remaining parcels on Campbell Avenue to residential use and full occupancy of the recent residential developments on Campbell Avenue would result in an additional 397 AM

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<sup>45</sup> San Francisco Bay Conservation and Development Commission. San Francisco Bay Scenarios for Sea Level Rise South Bay. 6 December 2007. [http://www.bcdc.ca.gov/media/planning/CCP\\_SouthBay\\_H.jpg](http://www.bcdc.ca.gov/media/planning/CCP_SouthBay_H.jpg)

net new peak hour trips and 399 net new PM peak hour trips. The result of the intersection level of service (LOS) analysis show that the Campbell Avenue and El Camino Real intersection currently operates at LOS B during the AM peak hour and LOS C during the PM peak hour. Under cumulative traffic conditions the intersection would operate at an acceptable LOS D during the AM peak hour and LOS C during the PM peak hour. Therefore, converting the remaining R&D and light industrial parcels on Campbell Avenue to residential development could be accommodated while maintaining an acceptable LOS at the El Camino Real and Campbell Avenue intersection under its existing configuration.

#### **4.17.2.1      *Planned Roadway Improvements***

The City of San José currently plans to widen the Campbell Avenue and El Camino Real intersection. These planned roadway improvements will require Caltrans review and approval. Two left-turn lanes and a separate right-turn lane are planned on westbound Campbell Avenue as well as two eastbound receiving lanes to provide inbound truck access for trucks turning right off northbound El Camino Real. The proposed PD zoning would be required to dedicate some right-of-way along the project frontage in both jurisdictions to accommodate these improvements which is included as part of this project proposal. With these planned improvements the Campbell Avenue and El Camino Real intersection would operate at LOS C during both the AM and PM peak hours. Although these intersection improvements are not required to mitigate an LOS impact caused by the cumulative projects, they would be necessary operationally to provide adequate turn pocket storage to serve the vehicle queues that would occur under cumulative traffic conditions.

#### **4.17.2.2      *Conclusion***

The proposed PD zoning would not contribute to a significant cumulative traffic impact at the intersection of Campbell Avenue and El Camino Real. **(Less Than Significant Cumulative Impact)**

### Checklist Sources

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4. Bay Area Air Quality Management District. CEQA Guidelines. December 1999.
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